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ABSTRACT

Evaluation was conducted of the Colorado Experience Based Career Education Model (CEBCEM) established in four subsites to formulate experience-based components, strategies, and objectives which fit the needs of students in grades 7 through 10. Focus of project activities during tne first year was on identifying and pilot testing selected components (basic skills, life skills, career development) and strategies (including career exploration, employer seminars, and guidance activities) of EBCE appropriate to the participating districts. Alternatives designed for implementing selected strategies were curriculum infusion, alternative school situations, interdisciplinary styles, and career cluster emphasis. Third-party evaluation was based on interviews with staff, teachers, and students and focused on process rather than product objectives. Concerns expressed by the evaluators related to the need to identify local goals, identification of student objectives for each strategy, identification of competency certification areas, and identification of student requirements. It was determined that those interviewed were very positive toward the project and that much activity was taking place in coordinating efforts of the schools and their local communities. Twelve recommendations were given regarding changes in strategies via questionnaire results. (Appendixes contain project materials and data collection and evaluation instruments.) (TA)

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First Interim Report

Project No. 502AH60067
Grant No. G08-76-00111

Colorado Experience-Based Career Exploration

Model 7-10

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

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CE 014 157

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November 1977

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V. SUMMARY OF THE REPORT:

A. Time Period Covered

September 1, 1976 through August 31, 1977

B. Goals and Objectives (Year One)

1. To list and describe the major exploration components of a Model Experience-Based Career Exploration Program, 7-10, including specific student outcome objectives for each component.
2. To select and adapt as necessary Experience-Based Career Education products, materials, processes, and techniques, to form strategy alternatives for each desired program component.
3. To specify operational plans for pilot testing at four sites strategies for each program component.
4. To pilot test the strategies at four sites.
5. To use pilot test findings to make final modifications.

C. Procedures Followed

During the first semester, four subsites worked together to formulate the experience-based components, strategies, and objectives which would fit the needs of youngsters in grades 7 through 10. Materials from Research For Better Schools and the Northwest Regional Educational Laboratory provided the basis for this selection.

At the local level the program was established through a combined effort of several groups:

> A group of cadre teachers was established at each subsite to assist in the selection and adaptation of materials according to the district needs.
>
> Each subsite also established a community advisory council to assist in identifying local needs.

A Project Coordinator at each of the subsites was responsible for the development of those components to be used at that site and the coordination of subsite activities with others.

At the State level a Project Director coordinated the total Project through frequent meetings of all Project Coordinators, to exchange ideas, share, and help each other solve problems; inservice programs, and training sessions.

During the second semester, each site conducted a pilot test of the strategies they had identified. This pilot test was evaluated based on attitudes expressed regarding the "process" by parents, community members, and the students. After this evaluation, the Coordinators assisted in revising the basic program components and developing a training program for involving additional teachers in the Project and providing the staff from the four different subsites with a chance to review strategy alternatives being developed.

D. Results and Accomplishments

An Experience-Based Career Exploration Model has been established for use with students in 7 through 10th grades. Adaptations made in other EBCE programs have been: changes in the time limitations for explorations and learning and skill building levels and lowering of student requirements. Thirteen components were identified as part of the Colorado Model with a total of eight different strategies designed to implement these components. Alternatives designed for implementing the strategies are curriculum infusion, alternative school situations, interdisciplinary styles, and career cluster emphasis.

Student objectives identified for eleven of the components were selected from a possible of eighty-six objectives. The four subsites agreed on thirty-one objectives to be met at all sites. (See Appendix A.1 to A.4)

E. Evaluation

An interim evaluation was conducted during the week of March 7, 1977. During this week the third-party evaluator (Policy Studies in Education) and the Project Director conducted on-site visits at the four subsites. Interviews with the Coordinators, superintendents, counselors, teachers, principals, employers, members of the advisory councils, and students provided the basis of this interim evaluation. It should be noted that this review and the total evaluation for this year were directed toward process objectives rather than product.

Several concerns expressed in the 39-page report were related to the need to identify local goals; identification of student objectives for each strategy; identification of competency certification areas by the advisory council; and identification of student requirements.

It was determined that those interviewed were very positive toward the project and a great deal of activity was taking place in coordinating the efforts of the schools and their local communities. (See Page 9 for report)

At the conclusion of pilot testing, a final evaluation was conducted using: Teacher and CEBCEM Staff Questionnaires, Student Questionnaires, and Employer Instructor Questionnaires on seven strategies. In the 108-page final report twelve recommendations were given regarding changes in strategies via questionnaire results. For example, "9th and 10th grade students were more involved and interested in competency certification activities than the 7th and 8th grade students...staff should consider the appropriateness of this strategy for seventh and eighth grade students as well as difference in methodology..." (See Page for complete report)

F. Conclusions and Recommendations

The CEBCEM Project is meeting the needs identified by the four subsites and is establishing a model which can be replicated in other districts. Through an examination of the requests for information on the Project (Appendix H-J) it is apparent that facets of this Project are desirable for others within and outside the State. It is also documented in the on-site evaluations that this Project will continue at all four subsites when federal funding is discontinued.

VI. BODY OF THE REPORT:

A. Problem Area Toward Which the Project was Directed

This Project was designed for the expressed purpose of developing a 7-10 Experience-Based Career Exploration Model for the State of Colorado. As such, several areas needed to be addressed and a variety of problems solved both before the Project was initiated and as a result of the Project.

Within the State of Colorado, Career Exploration activities are to be infused and integrated into the curriculum (grades 7-10) to affect students prior to their reaching the age when they can legally drop out of school (age 16) and prior to their planning a high school program. This allows students to develop a plan to utilize the high school programs to develop marketable skills through the existing training programs.

This opportunity in grades 7-10 for the student to explore different career clusters also provides an individual with a basis for career decision making, and in turn, enables the student to make better selection of courses for high school. This approach will provide the potential dropout with some exposure to the various opportunities available in the world of work. There was a need to expand the current work experience and/or work exploration opportunities for the students in the schools of Colorado. This expansion was needed downward from the current junior and senior levels in high school.

At the time of writing the original proposal, a limited number of work experience and/or work exploration stations for students had been developed and there was a need to expand those stations to include all the career clusters and to develop as many and varied work experience and/or work exploration stations as possible.

If students are to recognize success in reaching desired goals (through vocational preparation or college preparation) a need existed for them to be able to test and re-evaluate those goals before the junior year of high school when preparation for work may begin.

The State Plan for Career Education and the State Plan for Vocational Education in Colorado provides for exploratory activites to be integrated into the regular curriculum of grades 7-10. Therefore, this Project needed to be designed to utilize Experience-Based

Career Education (EBCE) techniques within the instructional setting as well as utilizing community exploration sites for a more close correlation of exploration with a realistic setting.

The National Association for Industry-Education Cooperation (NAIEC) cites the need for collaborative efforts between employers and educational institutions in preparing youth for work in its handbook: An Introduction to Industry-Education Councils:

> "It has always been difficult for students to make the transition from the classroom to the world of work. Sutdents need realistic perceptions of the world of work, and good quality, up-to-date educational programs to facilitate their entrance into that world. The ultimate success of schools depends upon their ability to provide these opportunities. The availability of such learning experiences can be increased by recognizing that work and education are so interrelated that neither can exist in isolation from the other."

In Colorado, we believe this need for a correlated effort between industry and education must be recognized at the 7 through 10th grade levels if students are going to realize the importance of education and its relationship to success in the world of work before actual preparation for work is available in the junior and senior high school years.

Previous studies sponsored by the National Institute of Education (NIE) were focused on providing mostly junior and senior high school students with opportunities for experience-based career education. Recognizing the successes of the Northwest Regional Educational Laboratory (NWREL) and Research for Better Schools (RBS), Colorado proposed to meet the needs of their students in grades 7 through 10 by adapting the materials developed at these two laboratory sites for use in the Colorado Career Exploration phase of Career Education.

Before the process to integrate an experience-based career exploration process could begin, Colorado recognized an even more pressing problem related to the development of a Colorado Model.

Due to the variations in the types of schools in Colorado and the diversity of populations in these schools a direct problem was identified in how to develop a model to serve the needs of the various school districts in the State of Colorado.

In Colorado, 109 out of 181 school districts have fewer than 100 students in the junior and senior classes combined. It was therefore recognized that to meet the exploration needs of students in rural schools they must be involved. After further examination it was determined that two distinct types of rural areas existed in the State of Colorado: high plains farming areas and mountain areas.

Colorado is also composed of a high number of Spanish-Americans. It was therefore determined that a rural/urban predominantly Spanish-American school district be involved.

In addition to the above three school district areas an urban component was identified to address the exploration needs of students in a metropolitan community. Together, the four subsites are representative of the areas of Colorado needing assistance in Career Exploration. Through utilization of these subsites in an Experience-Based program Colorado will meet the ever present needs of youngsters in grades 7, 8, and 9, in the junior high school and grade 10 in the high school.

Through a coordinated effort within the four sites (Holyoke School District - high plains farming area; Eagle School District - rural mountain area; Jefferson County Public School District - metropolitan area; and Rocky Ford School District - predominantly Spanish-American area) it was believed that prior research, materials and experience-based techniques could be coordinated with the current 7-10 grade career exploration phase to develop a model which would meet the needs of the variety of school district settings in Colorado.

B. Goals and Objectives of the Project

To develop, field test, and demonstrate a Colorado Experience-Based Career Exploration Model for 7 through 10th grade students.

The specific objectives include:

First year(1976-1977): to be reported on in this Interim Report

1. To list and describe the major exploration components of a Model Experience-Based Career Exploration Program, 7-10, including specific student outcome objectives for each component.

2. To select and adapt as necessary Experience-Based Career Education products, materials, processes, and techniques, to form strategy alternatives for each desired program component.

3. To specify operational plans for pilot testing at four sites strategies for each program component.

4. To pilot test the strategies at four sites.

5. To use pilot test findings to modify the stragegies.

The first year was devoted to identifying and pilot testing selected components and strategies of Experience-Based Career Education appropriate to the participating districts. Consequently, during the first year the Project is accountable primarily for the establishment and definition of a model experience-based exploration program rather than for delivery on specific learner outcomes. During the year, focus was placed on adopting and developing experience-based processes appropriate for students in the 7 through 10th grades.

C. Description of Project

The project design was based on the need to develop an EBCE model which would be applicable to the variety of student populations and school district settings within the State of Colorado. During the first year the process for implementing EBCE in a variety of settings and with seven through tenth grade students was the major focus of Project activities.

For the process development, a local coordinator and a group of cadre teachers were identified for completing the work at each of the four sub-sites:

Eagle Sub-site:

Doug Johnson - Project Coordinator
(September 1, 1976-August 31, 1977)
Initial Cadre Staff

Nancy Bills
Patricia Cuny
Felipe Blea
Glen Gallegos
Robert Zimmerman
Donna Zimmerman
Iileen Schiesel
John Gasuberger
Dana Greene
Loretta Gonzales
Ed Myers
Judy O'Radnik
Gabriel Richmond
Ralph Starr

Holyoke Sub-site:

Al Renzelman - Project Coordinator
(September 1, 1976-August 1, 1977)

Don Smith - Project Coordinator
(August 1, 1977 - August 31, 1977)
Initial Cadre Staff

Rita Brunken
Karen Crocker
Eugene Daise
Daryl Grasnick

Jefferson County Sub-site:

Dave Mangum - Project Coordinator
(September 1, 1976 - July 20, 1977)

Cherie Lyons - Project Coordinator
(July 21, 1977 - August 31, 1977)
Initial Cadre Staff

Cherie Lyons
Rich Berlanti
Bruce MacMillan
Jim Danenhauer
Sue Akerman
Paula Pearcy
Roy Daugherty
Robert Kinsey
Marge Bozarth

Rocky Ford Sub-site:

Jim Hamm - Project Coordinator
(October 4, 1976 - August 31, 1977)
Initial Cadre Staff

Louise Williams
Jim Sperber
Cathy Zawada
Rex Davis
Don Montoya
Charles Slate
Bernardo Lopez
Marty Atkinson
Ed. Steadman
John Sabec

On October 11-14, 1976, administrators, Project Coordinators, and members of the cadre staff from each sub-site (see Appendix B) attended a training session in Denver on the techniques and processes utilized by Research for Better Schools (RBS) and the Northwest Regional Educational Laboratory (NWREL) in implementing EBCE.

Participants at that training session returned to their respective districts and began in-district training (in most cases) and identification of those strategies and components of EBCE which would meet their respective district needs for CEBCEM. Local advisory committees were recruited from the four sub-site communities to assist in the identification of strategies process.

During subsequent meeting between the Project Director and local Project Coordinators, a preliminary learning path was developed for pilot testing strategies which could eventually become part of the Colorado EBCE Model. (See Chart 1.10).

Out of a student total of 2,510 in the seven through tenth grade of the Project sub-sites, 450 students were identified for pilot testing using two selection criteria: the rural district sub-sites utilized students as previously assigned to those cadre teachers for pilot test. One exception occurred in Holyoke where one cadre teacher allowed students the option of doing regular classroom assignments or being involved in the Project strategy.

The metropolitan sub-site initiated a student recruitment procedure whereby one junior high school and one senior high school decided to be involved in the pilot test. Students interested completed an application and were selected by the building principal or his review committee. (See Appendix C)

Strategies to be utilized during pilot testing were submitted to the Third Party Evaluator (see Charts 2.11 and 2.12) and a timeline for data collection was established (see Charts 3.13 and 3.14). A preliminary mid-year on-site visit was conducted with the following recommendations and conclusions reported:

Third Party Evaluator Mid-Year Report

> "The four local project sites (Eagle County School District, Holyoke School District, Jefferson County School District and Rocky Ford School District) were chosen for their unique representation of Colorado local school districts. The Holyoke School District represents a high plains farming community; Eagle County School District represents a rural isolated mountain community; Rocky Ford School District represents a predominantly Mexican-American community; and Jefferson County School District represents an urban school setting. Together these four districts provide a good cross section of the Colorado local school districts. Prior to the 1976-77 school year, each of these four districts had developed its CEBCEM project to fit into its comprehensive career education program and thus to meet the needs of each local community. The following are conclusions, and recommendations made as a result of PSE's March 7-10 site visits.

PRELIMINARY PILOT TEST DRAFT

COLORADO EXPERIENCE-BASED CAREER EXPLORATION MODEL (7-10) PROJECT

LEARNING PATH

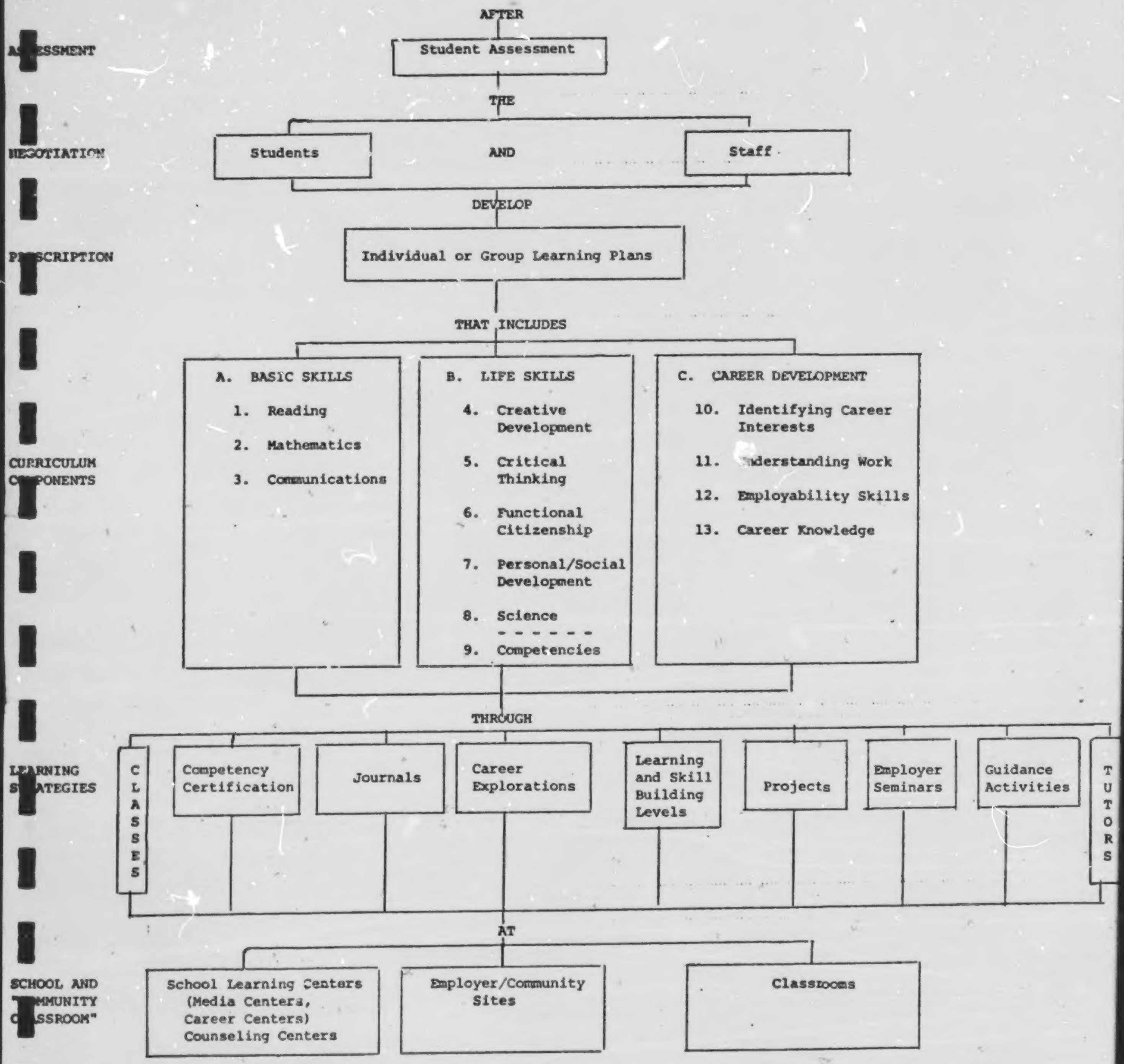

AFTER
ASSESSMENT
Student Assessment
THE
NEGOTIATION
Students
AND
Staff
DEVELOP
PRESCRIPTION
Individual or Group Learning Plans
THAT INCLUDES
CURRICULUM COMPONENTS
A. BASIC SKILLS
1. Reading
2. Mathematics
3. Communications
B. LIFE SKILLS
4. Creative Development
5. Critical Thinking
6. Functional Citizenship
7. Personal/Social Development
8. Science
9. Competencies
C. CAREER DEVELOPMENT
10. Identifying Career Interests
11. Understanding Work
12. Employability Skills
13. Career Knowledge
THROUGH
LEARNING STRATEGIES
CLASSES
Competency Certification
Journals
Career Explorations
Learning and Skill Building Levels
Projects
Employer Seminars
Guidance Activities
TUTORS
AT
SCHOOL AND "COMMUNITY CLASSROOM"
School Learning Centers (Media Centers, Career Centers) Counseling Centers
Employer/Community Sites
Classrooms

Chart 1.10

STRATEGIES TO BE PILOT TESTED IN EACH DISTRICT

Chart 2.11

	Holyoke	Rocky Ford	Eagle	Jeffco
Competency Certification	(2) Developing communications and Employability Skills (4) Developing Banking Skills (10) What every high school student should know about insurance.			(5) Competency Certification
Journal	(11) Teaching Communications skills through career related activities		(2) Student Assessment Inventory	(1) Journals
Career Exploration		(7) Preparation for Public Speaking (10) Bringing up the babies (14) Field Exploration	(1) Career Exploration (4) Career Exploration (through media)	(4) Career Exploration
Learning and Skill Building Levels	(9) Work experience in the community	(4) Shadowing for Game Management		
Projects	(6) Film making (1) Understanding Local Gover-ment	(8) Projects in Food Service and Management (9) Careers in Commercial art (15) Careers available in Home Ec.	(5) Project in Industrial Arts (3) Career Exploration	(2) Career Center

Chart 2.12

	Holyoke	Rocky Ford	Eagle	Jeffco
Employer Seminars	(3) Developing an understanding of health occupations	(10) Bringing up the Babies		
Guidance Activities	(7) Community Based Career Class	(13) Career Interest Awareness	(2) Student Assessment and Inventory	(3) Group Guidance

Timeline for Administering Instruments and Collecting Documents

Administration Dates

Strategy with Matching Instruments and Documents	May				June		
	2-6	9-13	16-20	23-27	30-3	6-10	13-17
1. Competency Certification							
a. Student Questionnaire				▬	·····		
b. Community Representative Questionnaire				▬	·····		
c. Teacher/Instructor CEBCEM Staff Questionnaire				▬	·····		
2. Journals							
a. Student Questionnaire			▬	·····			
b. Teacher/CEBCEM Staff Questionnaire			▬	·····			
c. Sample Student Journals			▬	·····			
3. Career Explorations							
a. Student Questions		▬	·····				
b. Employer Instructor Sample Question		▬	·····				
c. Career Exploration Packets		▬	·····				

Chart 3.13

Timeline for Administering Instruments and Collecting Documents

Administration Dates

Strategy with Matching Instruments and Documents	May				June		
	2-6	9-13	16-20	23-27	30-3	6-10	13-17
4. Learning and Skill Building Levels							
a. Student Questionnaires					■	·····	
b. Employer Instructor Questionnaires					■	·····	
c. Work Performance Evaluations					■	·····	
5. Projects							
a. Student Questionnaire			■	·····			
b. Teacher/CEBCEM Staff Questionnaire			■	·····			
c. Sample Student Information Materials			■	·····			
6. Employer Seminars							
a. Student Questionnaire		■	·····				
b. Employer Questionnaire		■	·····				
c. Sample Student Information Materials		■	·····				
7. Guidance Activities							
a. Student Tests/Teacher/CEBCEM Staff	■	·····					
b. Guidance Counselor Questionnaire	■	·····					

Chart 3.14

"The Holyoke School District has done a thorough job of introducing CEBCEM to its staff and consequently, the teachers and other staff are using a variety of strategies designed to involve community resources and the school system. The implementation of these strategies is being encouraged and supported by the Project Director, superintendent of schools, high school principals, and Board of Education.

Future local project's efforts should include:

- The specific components of each CEBCEM strategies should be identified and presented teachers or other CEBCEM personnel. Then no matter which teacher uses the CEBCEM strategy, the teacher and student processes will be similar.
- A structured CEBCEM program with specified student requirements should be developed. For example: Requirement 1: All seventh graders will do one Career Exploration under the direction of the English teacher.
- All areas for Competency Certification should be selected and reviewed by the Advisory Council.
- Local school personnel (librarian, guidance counselor, etc.) should be assigned definite responsibilities in the CEBCEM project.
- Goals for local CEBCEM project for 1977-78 should be identified.
- Students outcome objectives presented in a written format should be identified for each strategy and related to CEBCEM project's goals.

"The CEBCEM project in Rocky Ford may have begun the year at a slower pace than other project sites, but the project director has been able to gain the support of both the teaching staff and the community. In March, both teacher and community representatives were beginning to become actively involved in the project's activities and these activities are beginning to develop into CEBCEM strategies. However, the teaching staff needs to be guided and given support as they involve more students in individualized learning activities, independent career explorations, and other CEBCEM activities.

The following are PSE's recommendations for future project efforts:

- An in-service workshop explaining CEBCEM strategies should be held for the teaching staff, administration, and guidance counselors interested in the project.

- Student materials for each CEBCEM strategy should be developed by the project director and teaching or guidance staff.
- The specific components of each CEBCEM strategy should be identified and presented to teachers or other CEBCEM personnel. Then, no matter which teacher uses the CEBCEM strategy, the teacher and student processes will be similar.
- A structured CEBCEM program with specified student requirements should be developed. For example: Requirement 1: All seventh graders will do one Career Exploration under the direction of the English teachers.
- All areas for Competency Certifications should be selected and reviewed by the Advisory Council.
- Local school personnel (librarian, guidance counselor, etc.) should be assigned definite responsibilities in the CEBCEM project.
- Goals for local CEBCEM project for 1977-78 should be identified.
- Student outcome objectives presented in a written format should be identified for each strategy and related to CEBCEM project goals.

"During the 1976-77 school year, the project director in Eagle County School District has successfully gained the support needed to implement an effective CEBCEM project. Cadre teachers have been trained and are using their knowledge to develop new CEBCEM strategies and activities in their home schools as well as encourage other teachers to be involved. The community is beginning to be used as an alternate setting for instruction and future project efforts should expand this approach.

In addition to encouraging greater use of the community, future project efforts could include:

- CEBCEM strategies that require students to work independently on individualized assignments should be developed. For example: Independent work study projects, Competency Certifications, Journals.
- Student materials for each CEBCEM strategy should be developed by the teaching or guidance staff with the assistance of the project director.
- The specific components of each CEBCEM strategy should be identified and presented to teachers or other CEBCEM personnel. Then, no matter which teacher uses the CEBCEM strategy, the teacher and student processes will be similar.
- A structured CEBCEM program with specified student requirements should be developed.

For example: Requirement 1: All seventh graders will do one Career Exploration under the direction of the English teachers.

- Goals for the local CEBCEM project for 1977-78 should be identified.
- Student outcome objectives presented in a written format should be identified for each strategy and related to local CEBCEM project goals.

"The Jefferson County School District has developed a CEBCEM program that is uniquely different from the other three project sites. The district has selected to provide CEBCEM strategies to students in an alternative school setting. This program, as they have developed it, provides those students who select to be CEBCEM students with individualized instruction in basic skill areas as well as the opportunity to explore various careers through observations, research, and hands-on experiences. This CEBCEM program supplements the district's comprehensive career education program well. It appears that the project staff has been able to build upon resources and programs previously available to the district and has developed a CEBCEM program that is a valuable addition to the existing programs.

"The Jefferson County project has also organized a definite plan for implementing the CEBCEM program into the two project schools. The plan called for the program to begin the first quarter of the second semester for the junior high students and the second quarter of the second semester for the senior high students. In this way, the project could learn from its initial experiences. Also, CEBCEM students were very carefully selected to assure that the program would be able to develop to its fullest potential during the pilot stage. This organized plan for implementing the CEBCEM into the Jefferson County schools reflect the project staff's understanding of how to introduce new educational programs into a school district. The steps they have taken will help insure that the CEBCEM program will remain a part of the Jefferson County curriculum after federal funding has been removed.

The following are recommendations for future project efforts:

- The specific components of the CEBCEM program for both the junior high and senior high students should be identified. In this way it can be determined if the programs are identical for both levels of students or if the high school program is an extension of the junior high program.

- Specific student requirements such as the project's requirements for Competency Certification should be established for all strategies used at the junior high or senior high age level.
- Student outcome objectives should be identified for each strategy at each age level.
- Student and instructor activities should be developed for those strategies identified in the CEBCEM but not selected for pilot testing this school year.
- A program for involving employer instructors with the CEBCEM project could be developed to provide employer instructors with a better understanding of the project's operation. This type of program would be very valuable to other school districts who may want to establish a CEBCEM program.
- If the CEBCEM teaching staff changes next year, those teachers who participated in the project this year could be used as inservice trainers for the new teaching staff next fall.
- Student selection for the CEBCEM program next year in the two pilot schools should focus on the average student more so than the above average student who participated in the project this year. Comparisons can then be made at the end of the 1977-78 school year to determine if the program can be implemented successfully in the same manner for both kinds of students."

In addition to examining the progress being made in each sub-site, the third party evaluator attempted to pull together the definitions of strategies being utilized at the four sub-sites into a single definition which would serve as the Colorado model and still allow for variances needed by each district due to differences in communities and student populations. As a result of this review Policy Studies in Education felt that two strategies, "Classes" and "Tutors" were more reflective of "the type of teaching method more so than individual strategies for implementing EBCE into the regular program. Consequently Classes and Tutors are not being considered for pilot testing at this time. It is possible that during the 1977-78 school year these two stragegies will be more defined and therefore require unique pilot testing procedures. The 1977-78 school year can then be used for additional pilot testing as well as field testing of strategies developed and pilot tested during the 1976-77 school year."

During the remaining project period the instructional staff at each sub-site pilot tested those strategies identified and the project coordinators worked with the project director to finalize necessary strategy descriptions, select and identify goals and objectives being met through CEBCEM, and planned for a staff training workshop to be held in August after pilot testing reports were completed.

Based upon the results of pilot testing, as well as information received by the third party evaluator, considerable time was utilized in June and July to modify and rewrite the strategies and processes pilot tested into a Colorado Model for EBCE curriculum and instruction.

During one week in August a staff training process was pilot tested utilizing the materials developed during the first project year. The cadre teachers and project coordinators utilized their background and experiences, as well as the materials, to provide training to additional teachers from the four sub-sites. This workshop provided a basis for developing a model training program for implementing CEBCEM into other Colorado school districts and allowed the instructional staff to exchange ideas, strategies, solutions to problems, etc., with participants from the four sub-sites.

D. Evaluation, Results and Accomplishments

The final project evaluation indicated several areas for indepth concentration during field testing and provided an indicator of the results and accomplishments which were met during pilot testing.

See Appendix D for the listing of actual instruments developed and used for the pilot test.

The analysis of the results of the pilot test on students, teachers, community people, and the CEBCEM staff is as follows:

> (Please note that Jefferson County did not use the instruments as developed by the third party evaluator. Since all students were involved in every strategy, the number of instruments for one student to complete was overwhelming. Instead, they developed their own questionnaires on the junior high school program. The analysis of Jefferson County is therefore separate from the other three sub-sites.)

ANALYSIS OF PILOT TEST RESULTS

This section will analyze each strategy based on the results collected from all districts who returned completed instruments for that strategy. It will also compare briefly the different activities submitted for each strategy by the local districts. The tabulated results for each instrument used to pilot test a strategy appear in Appendix A organized by strategy and participants (students, employers or community representatives, and teachers or instructors).

Journal

Each of the three districts submitted an activity to pilot test the Journal strategy:

District	Activity Name	Number of Students	Grade Level
Holyoke School District	Teaching Communication Skills Through Career Related Activities	31	8
Rocky Ford School District	Field Exploration	6	7
		8	8
Eagle County School District	Student Assessment Inventory	26	8

PSE received completed student questionnaires from each district and completed teacher and CEBCEM staff questionnaires from Rocky Ford School District and Holyoke School District.

Teacher and CEBCEM Staff Questionnaires

Teacher and CEBCEM staff questionnaires were completed by the teachers who conducted the activities titled: "Teaching Communication Skills Through Career Related Activities" and "Field Exploration." Both teachers used journals with complete classrooms of students. Students were assigned the journal writing activity by the teacher for a specified length of time. One teacher required students to complete at least one half page of a standard notebook size each week. The topic of Identifying Career Interests was assigned to both classrooms of students and both teachers reviewed the material periodically for content but not systematically for grammar. The teacher using the activity titled "Teaching Communication Skills Through Career Related Activities" had used journal writing in the classroom since 1969-70 and the class which completed the student questionnaire had been writing journals for two years on a weekly basis. The teacher noted that during that time students were asked to comment on personal issues and activities as they desired. For the CEBCEM project however, the teacher asked that students devote their journal writing tc career information and career interests for an unspecified amount of time. Apparently, in this teacher's mind there was a need for the students to write about careers in order to be included in the CEBCEM project. As will be noted, the students did not draw this distinction and more or less commented on the journal writing activity as it had existed for the past two years.

Many of the responses by these two teachers suggest that there is some confusion about the role of the teacher in this strategy and the CEBCEM project, the nature of EBCE in general, and the reason for pilot testing the journal writing strategy (i.e., to provide information for others who might be interested in using this strategy). These implications are suggested by the number of questions which were left unanswered. Neither of the teachers indicated that he or she had received in-service instruction in the use of this strategy. This question may have been misleading and implied instruction in how to teach journal writing rather than how to use journal writing in a CEBCEM project. Instruction could have emphasized using the community outside the school as a source of topics, motivating situations, and even alternative settings for journal writing activities. Both teachers did not indicate keeping any records to document students' progress in their journals and only one teacher indicated that he or she provided comments to students at the end of the grading period. Only one of the two teachers rated the use of the journal strategy with students. It was that teacher's opinion that the journals were most effective in helping students to reflect on experiences they are having in the community and least effective in helping students increase their understanding of themselves. However, both teachers felt that the journal strategy was equally as important as students regular classwork. One of the teachers felt that the following revisions might improve future use of the journal strategy:

- A grading system be recommended for teachers using this strategy.
- Requirements for students in this strategy be established.

One of the two teachers indicated the intention of using the journal strategy with students during the 1977-78 school year.

In summary, the journal strategy was pilot tested with students in a classroom setting where the teacher assigned the journal to be written by each member of the class on a career related topic over a specified length of time. In neither school district was the journal strategy used with an individual student on an independent basis (e.g., a student doing a project, a learning and skill building level, or a student recording observations made during career explorations while on site).

Student Questionnaires

A total of 65 eighth grade students and six seventh grade students completed the student questionnaires for this strategy. The journals were described by the students to be approximately one page in length, written once a week, and written over a period of time varying from two weeks to two years (16 students indicated they were part of the seventh and eighth grade classes that had been writing journals for two years). Combining the results from all three districts, the students wrote most frequently about their feelings concerning school and learning, their life and career goals, their relationships with other people, their abilities and interests, and their school problems and activities. Their journals were reviewed at least once a week by the teacher through written comments and very seldom through conferences or oral comments. Teacher comments were rated as being fairly helpful or very helpful by most students.

The students were also asked to rate the effectiveness of the journal writing experience to increase or improve skills and understanding in five areas. Students were given a rating scale of 1 through 5 with 1 indicating that the writing experience was not helpful at all and 5 indicating that the writing experience helped a great deal. Table 2 shows how the students' responses were distributed across the rating scale. This data is displayed as percentages of the total student population (N=71). By combining the results of all three districts, it appears that the students did not feel that this strategy was effective in producing desired learning. It should be noted here that these results are heavily influenced by one district where between 65% and 85% of the students rated the helpfulness of the journal writing strategy as a 1 or 2 (that is, as being not helpful at all or only slightly helpful) in four of the five areas. The only exception was Area A. The reason or reasons for such negative ratings from this district is not readily apparent. It may reflect the way the strategy was presented to the students, the students' reaction to a certain teacher, or the students' lack of

Table 2
JOURNALS
STUDENT QUESTIONNAIRES

Distribution of Students' Ratings From All Three Districts Combined

Question 9	% of Students Choosing Each Rating				
How much did keeping a journal help you to:	1 Not at All	2	3	4	5 A lot
a. increase your skills in organizing and expressing your thoughts and feelings,	14%	14%	41%	17%	8%*
b. improve your understanding of yourself,	21%	25%	20	24%	8%
c. improve your understanding of your life and career options,	24%	24%	23%	15%	10%
d. reflect on experiences you have had in the community,	31%	11%	20%	25%	4%
e. draw connections between present experiences and future goals.	21%	13%	25%	23%	11%

*The No Response rate varied from 2%-9%.

interest in completing the questionnaires. These overwhelmingly negative responses, however, do warrant further investigation on the part of the project staff in understanding why the students responded in this way.

In general though, the students felt that keeping a journal was more helpful 1) in increasing their skills and organizing and expressing their thoughts and feelings; 2) in improving their ability to reflect on experiences they had had in the community; and 3) in improving their ability to draw connections between present experiences and future experiences than it was in improving their understanding of themselves, their life options and their career options.

A majority of the students felt that the most valuable part of this experience was having the opportunity to express themselves. Other comments included being able to talk with the teacher and receive her comments; learning about different jobs, learning by doing, and looking at what they had done throughout the year. Most of the students indicated that they would not change anything about working on journals. Over half of the students felt that they could write in their journal about ideas they could not discuss as easily with others; that it was important for students to be able to relate their experiences and feelings to their future plans; and that their journals truly represented the way they felt about things. At the same time though, over half of the students felt that for a significant portion of time, they really did not have anything to record in their journals.

In summary, the students felt that the journal writing may help improve their communications skills, but they were not enthusiastic in supporting this activity. Only 14% of the students indicated that they would keep a journal on their own and only 34% of the students stated that they would encourage other students to keep journals.

Projects

The following activities were submitted by the three districts for pilot testing the projects strategy:

District	Activity Name	Number of Students	Grade Level
Holyoke School District	Film making	31	7-8
	Understanding Local Goverment	3	9
Rocky Ford School District	Careers and Home Ec.	8	8
	Careers in Commercial Art	7	10
	Projects in Food Service and Management	6	11-12
Eagle School District	Project in Industrial Arts	9	8

PSE received completed student questionnaires and teacher and CEBCEM staff questionnaires for each of these activities plus one teacher and CEBCEM staff questionnaire from a sixth teacher whose class used a project strategy but did not complete student questionnaires.

Teacher and CEBCEM Staff Questionnaires

A total of six teacher and CEBCEM staff questionnaires were returned to PSE for this analysis. Three of the questionnaires were completed by teachers from the seventh and eighth grade levels; two from the ninth and tenth grade levels and one from the sixth grade level. The type of activities in which students participated can be divided into three categories: Class Projects, those in which a classroom of students work together to complete a project; Individual Student Projects within Classes, those in which all students in a class worked individually on projects within the classroom and under the supervision of the classroom teacher; and Independent Student Projects, those in which students worked on their own in settings outside of the classroom. The activities which were used to pilot test this strategy can be classified as follows:

Class Projects	Individual Student Projects Within Classes	Independent Student Projects
Projects in Food Service and Management	Film Making	Understanding Local Government
Careers Available in Home Economics	Careers in Commercial Art	
Projects in Industrial Arts		

The activity discussed by the sixth grade teacher was also a Class Project.

The responses to the teachers and CEBCEM staff questionnaires show that, in general, the teachers met with each student to discuss the projects frequently. Five of the six teachers indicated that they had met with students at least seven times and as many as fifteen times, implying a high degree of supervision. Teacher/student discussions usually involved the topics of goal-setting and planning, use of resources, and scheduling and use of time. Community resource persons were used in each district and teachers contacted community resource persons for two major reasons: to be speakers for career education projects and to obtain permission for field trips. Although five of the six teachers felt that it was very important for students to be able to utilize community resource persons and make site visits, only two of the six teachers felt their students were able to do this effectively.

Students' progress was evaluated and documented by each teacher based on the nature of the project. Four of the six teachers indicated that students were asked to evaluate themselves. Evaluations also included the teachers' assessment of students' creative input, attitudes and skills. Overall effectiveness of the project, committment to the project, and community feedback were also mentioned by at least one teacher.

Each teacher was also asked to rate his or her students' capabilities in the following six areas:

a. identifying problems or issues
b. gathering and sorting information related to problems or issues
c. interpreting information relating to problems and issues
d. developing alternatives
e. defining a plan of action
f. evaluating the results of their actions

Students were rated on a scale of 1 to 5 ranging from Not Well At All to Extremely Well. Most teachers indicated that their students were able to identify the problem and gather and sort the information relating to the problem or issue as a 4, indicating a high degree of skill. Approximately half of the teachers also rated their students' ability to define a plan of action and interpret the information relating to the problem or issue in the skillful range of the scale. The weakest skill areas were the students': (1) ability to develop alternatives and (2) ability to evaluate the results of their actions. It is interesting to note that the students' ability to evaluate themselves was rated so low by the teachers even though the majority of the teachers used student self-evaluation as an assessment measure.

All of the teachers felt that compared to the students' regular classwork, the projects they had worked on in this strategy were equally as important. Half of the teachers identified the opportunity to carry out ideas from classwork as the most valuable part of this experience for their students. One-third of the teachers felt that their students benefited the most from this experience by discovering career options and developing salable skills. At least one of the six teachers mentioned the following as being the most valuable part of this experience for his or her students:

1. working together with classmates;
2. developing responsibility;
3. hands-on observations.

Four of the six teachers indicated that they definitely planned to supervise more students who would be carrying out projects during the 1977-78 school year and one teacher indicated that this was a possibility. The remaining teacher did not respond. A few of the teachers made recommendations for revisions in the strategy's procedures. It was suggested that the project strategy emphasize more community contact and involvement and that more information concerning the strategy be available. It was also mentioned that revisions were necessary concerning the length of projects and evaluation.

In summary, the projects strategy was pilot tested with students in three different situations (class projects, individual student projects within classes, and independent student projects). It was tested with students at all four grade levels and in each of the three districts.

Student Questionnaires

A total of 64 student questionnaires were completed by students in the three districts. Students' responses to the questionnaires were analyzed according to the three categories of activities for this strategy (Class Project, Individual Student Projects within Classes, and Independent Student Projects). The number and grade level of students who completed questionnaires in each category of activity appear in Table 3. The students who participated in Class Projects were involved in an activity that involved all students in the classroom. These include such activities as establishing a mini-restaurant serving quick foods to students, preparing a buffet at a local restaurant, and producing a product for sale in an Industrial Arts class. Those students who were on Individual Student Projects within Classes usually completed a project by themselves and projects were assigned to each member of the class. One of the activities classified in this category required students to produce films showing people at work. The other activity was a part of a commercial art class in which students designed posters and handbooks for the school. Only one activity was classified in the third category, Independent Student Projects. This activity required students to interview local government officials to obtain information concerning job duties and obligations of elected and appointed officials. Three students from the class worked with the teacher to select learning objectives for the project and then carried out the project on their own.

In general, the students responded that their projects were designed with their teacher and they carried out their projects by attending classes, working individually with their teachers, or by using community resource people. In most cases, the teacher in charge set up the meetings with the community representatives. The major exception to this procedure was the film making class where 70% of the students indicate that they had set up their own meetings with community representatives

Table 3

PROJECTS
STUDENT QUESTIONNAIRES

Number and Grade Level of Students who Completed Questionnaires by Activity Category

CLASS PROJECTS		INDIVIDUAL STUDENT PROJECTS WITHIN CLASSES		INDEPENDENT STUDENT PROJECTS	
Number of Students	Grade Level	Number of Students	Grade Level	Number of Students	Grade Level
17	8	31	7-8	3	9
6	11-12	7	10		

Contrary to what the teachers had indicated, 69% of the students stated that their work was evaluated by their teacher. Only 16% of the students felt they had evaluated their work themselves. The majority of the students felt that compared to other school work, working on projects was much more interesting or at least more interesting. Fifty-two percent of the students stated that they enjoyed working on projects and would encourage other students to get involved in doing projects.

Students were also asked to respond to 15 questions concerning their attitudes towards their experiences in this strategy and their opinion of their own ability to use certain skills that are often necessary in this strategy. The students' responses to these questions are displayed in Table 4 according to student responses in each of the three categories of activities. Students were given five options with which to record their feelings or opinions (Strongly Agree, Agree, No Opinion, Disagree, and Strongly Disagree). Table 4 displays the percentage of students who responded positively to each of the 15 statements. Depending upon the wording of the question these percentages are based on the number of students who chose strongly agree and agree or strongly disagree and disagree. In general, the students' responses were very positive toward the experiences they had had in this strategy. The students who had completed Independent Student Projects appeared to have the most positive attitudes toward their experiences when compared to the two other categories. However, the sample size is very small and is difficult to compare with the sample sizes from the two other categories. Overall, students felt that learning to do research on their own was important to them; planning their own school work around topics which interested them was enjoyable; they could learn a lot by working by themselves and they would not prefer regular classwork over projects. The students who participated in Class Projects and Individual Student Projects within Classes showed less favorable attitudes toward two of the seven statements reflecting their experiences in the

Table 4

PROJECTS
STUDENT QUESTIONNAIRES

Student Responses That Indicate Positive Attitudes or Opinions* Toward This Strategy by Activity Category

Questions	*% of Students Choosing SA and A or SD and D Depending Upon Question Wording		
	Class Project	Individual Project Within Classes	Independent Student Project
Experience			
1. Learning to do research on my own is important to me.	83 %	71%	100%
2. I enjoy planning my own schoolwork around topics which interest me.	91%	89%	99%
3. It is the teacher's job--not the student's--to set up learning activities.	39%	31%	100%
6. All students should have the opportunity to carry out their own projects.	87%	84%	100%
7. Projects done at community sites can just as easily be done in school.	17%	42%	100%
10. I can learn a lot working by myself.	61%	79%	100%
15. I would rather do regular classwork than work on projects.	78%	84%	100%
Skill Assessment			
5. I feel I can clearly define several of my learning goals.	74%	63%	99%

Table 4 (Cont'd.)

	% of Students Choosing SA and A or SD and D Depending Upon Question Wording		
	Class Project	Individual Project Within Classes	Independent Student Project
Skill Assessment			
8. Doing my project helped me to understand my own work habits such as self-discipline and effective use of my time.	87%	82%	66%
13. I am able to set realistic goals for myself and to reach them.	74%	71%	99%
14. I feel I was able to direct my own learning while I was doing my project.	93%	79%	100%
Skill Importantce			
4. It is important to use a variety of resources when researching a topic.	65%	71%	99%
9. Critical thinking is necessary in relatively few projects.	18%	60%	99%
11. Being able to evaluate your own work is not important until a student is ready to graduate from high school.	69%	71%	100%
12. It is not necessary for students to be able to work well with adults.	82%	58%	100%

strategies than the students who had worked on Independent Student Projects. These two statements are directed more closely toward independent activities than class acitivities. They appear as follows:

> It is the teacher's job--not the student's--to set up learning activities;
> All students should have the opportunity to carry out their own projects.

It is possible that the students' negative responses to these statements can be attributed to their lack of experience with independent work. Students who have done projects within the classroom structure expect that the teacher would plan the learning activities and that projects done outside of school were no different from projects done in school. The students who had worked on Independent Student Projects, on the other hand, were overwhelmingly more positive when responding to both of these statements. Students were also asked to assess their own skills in certain areas and give their opinion about the importance of other skills. Overall, the students felt they could identify clearly several of their learning goals; were able to understand their own work habits better by having completed projects; were able to set and reach realistic goals for themselves; and were able to direct their own learning while doing projects. These responses indicate that the students definitely felt capable and confident in working independently. Even the students who had worked on class projects felt confident in their ability to work independently. The students from all three categories also felt that it was important to use a variety of resources when researching a topic; being able to evaluate their own work was important even while in high school; and it was necessary for students to be able to work well with adults. The need for critical thinking in carrying out projects was rated low by the students who had completed Class Projects, althought the other two groups rated this more favorably. Thirty-nine percent of the students in the Class Project category had no opinion for this statement, which probably indicates that the students were unfamiliar with the terms "critical thinking".

Students also rated their ability to carry out their project on a rating scale of 1 through 5 (5 being able to do something extremely well and 1 not being able to do something at all). The percentage of students who selected each of the scale indicators appears in Table 5 according to the type of project a student completed. The students were asked to rate their ability in performing six tasks that are necessary in carrying out a project. In general, the students from all three categories rated their ability in each of the six tasks in the middle of the scale, indicating average ability.

Developing salable or vocational skills was by far the most valuable part of this experience for the greatest number of students. When asked to list the most valuable part of this experience, approximately 48% of the students who responded to this question mentioned acquiring a skill (operating a camera, working in a restaurant, etc.). A smaller percentage of students mentioned other things including working together with their peers, learning to do things alone and learning about careers. All three of the students who had worked on Independent Student Projects listed learning outside of school as the most valuable part of their experience. Most of the students did not comment on what they would change about working on projects or commented by stating "nothing." Those that did comment indicated that they would like to add more independent work, more experiences in the community, more time devoted to the project and more projects.

In summary, the students in all four grades (7-10) enjoyed participating in the projects strategy. Their enthusiasm and interest did not depend on the type of project, as students from all three categories appear to be equally as interested and involved.

Table 5

PROJECTS
STUDENT QUESTIONNAIRES

Distribution of Students' Responses by Activity Category

Questions	Class Projects					Individual Student Project Within Classes					Independent Student Project				
12. How well do you feel you:	1 Not Well At All	2	3	4	5 Extremely Well	1 Not Well At All	2	3	4	5 Extremely Well	1 Not Well At All	2	3	4	5 Extremely Well
a. Identified the problem or issue	4%	4%	61%	13%	9%*	3%	5%	74%	18%	0%	0%	0%	66%	33%	0%
b. Gathered and sorted information related to the problem or issue	4	13	57	13	0	5	21	42	29	1	0	0	0	66	33
c. Interpreted information related to the problem or issue	0	13	48	26	0	0	21	32	37	10	0	0	33	66	0
d. Developed alternatives	4	22	48	9	4	10	8	42	24	16	0	0	100	0	0
e. Defined a plan of action	4	4	61	4	9	2	13	39	29	16	0	33	33	33	0
r. Evaluated the results of your actions	4	13	43	22	4	5	11	50	26	8	0	0	66	0	33

*The No Response rate for this group ran between 9% and 17%.

Guidance Activities

Each of the three districts also submitted an activity to pilot test the Guidance Activities strategy:

District	Activity Name	Number of Students	Grade Level
Holyoke School District	Community Based Career Class	45	7
		54	8
Rocky Ford School District	Career Interest Awareness	6	7
		7	8
Eagle County School District	Student Assessment Inventory	17	8
		4	11-12

PSE received completed student questionnaires from each district and completed teacher and CEBCEM staff questionnaires from Rocky Ford School District and Eagle County School District.

Teacher and CEBCEM Staff Questionnaires

The two teachers who completed the teacher and CEBCEM staff questionnaires on the average spent three to five hours each week working on Guidance Activities with their students. Several CEBCEM Guidance Activities were supervised by both teachers and include activities that focus on:

Decision making

Identifying personal abilities, aptitudes, and interests

Values clarification

Job-getting skills

Goal-setting

Standradized interest inventories (OVIS and Kuder)

Communication skills

Approximately 90% of the time these teachers spent on Guidance Activities was spent working with students in small group exercises, instruction, or counseling. In most instances the Guidance Activities were held in a classroom, such as a career education classroom. Community representatives were involved with these activities (one teacher indicated involving 30 community representatives for one hour each and the other teacher indicated involving 6 community representatives for the same amount of time). Both teachers felt that their students were interested in the activities and that these activities were appropriate for their students. CEBCEM Guidance Activities were identified as different from regular guidance activities in that they were much more organized; provided continuity; provided for the discussion of topics (values, self-awareness, etc.) on a more personal level; were more self directed; and provided for the discussion of a wide continum of ideas. The teachers felt that students benefited from these Guidance Activities by gaining a better understanding of themselves, by developing personal values, and by participating in shadowing experiences (exploration activities).

In general, both districts involved students in taking an interest inventory and then in exploring careers either through shadowing experiences or research projects. Although PSE did not receive a completed questionnaire from Holyoke School District, we understand its Guidance Activity to be somewhat different. In this school district, students were to attend a 55 minute class once a month for guidance purposes. Community resource people were to conduct sessions which would include topics such as:

How to study
Understanding aptitudes
Understanding interests
Planning time

It was expected that at least one of these sessions would be held before the pilot test instruments were administered.

Student Test

A student test rather than a student questionnaire was used with this strategy. It contained multiple choice and agree/disagree test items reflecting several of the guidance activities mentioned earlier (decision making; goal setting; interests, aptitudes and abilities identification; values clarification; and job-getting skills development). Student tests were received from each of the three districts and Table 6 shows the number of students who completed the test by grade level and by district. In discussing this strategy, PSE did not use the 11th and 12th grade students from Eagle County; instead PSE focused on the seventh and eighth grade students.

The average score by district on the multiple choice items (1-51) ranged from a low of 50% to a high of 60%. Both the seventh and eighth graders from the Holyoke School District scored somewhat higher than the seventh and eighth grade students from Rocky Ford School District and Eagle County School District. Also, the eighth grade students from all three districts tended to score higher than the seventh grade students on the multiple choice questions. These results appear in Table 7. The average score by district on the agree/disagree questions (1-46) is considerably higher than the average score by district for the multiple choice questions. The average score for the agree/disagree questions ranged from a low of 65% to a high of 76%. There is very little difference between the scores of the seventh grade and eighth grade students on these questions. These results are shown in Table 8.

The multiple choice and agree/disagree items that appeared on the student test were grouped according to the guidance areas they measured. Of the 97 items, 73% were classified into one of four areas. These areas include: 1) Decision Making and Goal Setting; 2) Identifying Interests, Abilities, and

Table 6

GUIDANCE ACTIVITY
STUDENT TESTS

Number of Students by Grade Level and by District

District	Number of Students	Grade Level
Holyoke School District	45	7
	54	8
Rocky Ford School District	6	7
	7	8
Eagle County School District	17	8
	4*	11-12

*Not included in analysis.

Table 7

GUIDANCE ACTIVITY
STUDENT TESTS

Average Score on Multiple Choice Test by Grade Level and by District

District	Score	Grade Level
Holyoke School District	57%	7
Rocky Ford School District	50%	7
Eagle County School District	—	
Holyoke School District	60%	8
Rocky Ford School District	57%	8
Eagle County School District	58%	8

Table 8

GUIDANCE ACTIVITY
STUDENT TESTS

Average Score on Agree/Disagree Test by Grade Level and by District

District	Score	Grade
Holyoke School District	72%	7
Rocky Ford School District	75%	7
Holyoke School District	76%	8
Rocky Ford School District	65%	8
Eagle County School District	75%	8

Aptitudes and Values Clarification; 3) Job Getting Skills and 4) Career Information and USOE Career Clusters. Table 9 shows the items that were classified in the Decision Making and Goal Setting area and the percent of students from each district at each grade level who responded correctly to each item. Examples of the kind of items which are included in this area are as follows:

13. Being realistic about a career choice means choosing a career that

    1. is approved by your parents.
    *2. you have the abilities to meet.
    3. will make the most money.
    4. can be accomplished soon.

35. Part of decision making is being able to be proud of your decision after you have made it.

    *a. Strongly Agree
    b. Agree
    c. No Opinion
    d. Disagree
    e. Strongly Disagree

The average percent correct per item for each group of students appears at the bottom of Table 9. The average percent correct for four of the five groups ranged from a low of 63% to a high of 67%. The one remaining group, Rocky Ford's eighth grade, had a considerably lower average percent correct per item. These results indicate that all three districts are providing students with similar experiences in Decision Making and Goal Setting either through the CEBCEM Guidance Activities or other guidance activities. The low score for the eighth graders from Rocky Ford implies that this group of students should be given additional experiences in decision making and goal setting in the future. In Table 10, the items which measure Identifying Interests, Abilities, and Aptitudes and Values Clarification are displayed. The range of average percent correct per item across all five groups is slightly larger for these items than for the items appearing in Table 9. The

Table 9

ITEMS ANALYZED BY GUIDANCE ACTIVITIES

Decision-Making and Goal Setting Area

Item Number	% Answering Correctly Grade 7 Holyoke	% Answering Correctly Grade 7 Rocky Ford	% Answering Correctly Grade 8 Holyoke	% Answering Correctly Grade 8 Rocky Ford	% Answering Correctly Grade 8 Eagle
7	29%	83%	35%	29%	41%
8	67%	50%	63%	57%	53%
11	82%	83%	91%	71%	82%
12	60%	17%	83%	43%	82%
13	87%	67%	87%	71%	94%
22	69%	33%	72%	43%	59%
25	58%	33%	44%	14%	47%
34	44%	50%	39%	57%	65%
36	80%	67%	76%	57%	71%
39	53%	100%	44%	71%	65%
51	87%	67%	78%	71%	76%
14	49%	50%	59%	29%	41%
25	67%	83%	80%	43%	82%
26	56%	67%	52%	29%	65%
32	38%	67%	52%	14%	18%
35	69%	67%	78%	57%	71%
36	62%	67%	69%	29%	82%
39	71%	83%	80%	14%	71%
Average Percent Per Item	63%	67%	66%	44%	65%

Table 10

ITEMS ANALYZED BY GUIDANCE ACTIVITY

Identifying Interests, Abilities, and Aptitudes
and
Values Clarification

Item Number	% Answering Correctly		% Answering Correctly		
	Grade 7		Grade 8		
	Holyoke	Rocky Ford	Holyoke	Rocky Ford	Eagle
35	49%	17%	65%	57%	59%
43	78%	67%	80%	43%	47%
45	47%	50%	63%	57%	41%
49	29%	50%	48%	29%	53%
5	33%	33%	59%	57%	41%
9	71%	50%	89%	57%	59%
10	67%	50%	65%	43%	59%
13	64%	33%	87%	29%	71%
16	67%	33%	87%	43%	71%
23	76%	50%	76%	29%	71%
27	69%	50%	81%	29%	65%
40	38%	67%	52%	14%	41%
41	49%	50%	69%	43%	76%
42	71%	67%	87%	71%	71%
43	73%	83%	78%	57%	88%
44	69%	50%	74%	43%	53%
45	58%	50%	72%	43%	59%
46	58%	67%	57%	57%	65%
Average Percent Correct Per Item	59%	51%	72%	45%	61%

range goes from a low of 45% to a high of 72%, with the high and low groups both being eighth grade groups. With the exception of the Rocky Ford eighth grade group, it appears that the eighth grade students have had more experience in Identifying Interests, Abilities, and Aptitudes and also in Clarifying Values than the seventh grade students. Examples of the kind of items which are classified into this area are as follows:

43. Clarifying your values can help you to

    1. get better grades.
    2. do more homework.
    *3. form clearer goals.
    4. join extra curricular activities.

27. Knowing what your limitations are is just as important as knowing what your talents are.

    *a. Strongly Agree
    b. Agree
    c. No Opinion
    d. Disagree
    e. Strongly Disagree

Table 11 shows the items that are classified into the area of Job Getting Skills. The range of average percent correct per item across the five groups is rather large for this area also. The average score ranged from a low of 45% to a high of 62%, with both the seventh grade and eighth grade groups from Rocky Ford scoring considerably lower than the seventh and eighth grade students from the other two school districts. With the exception of the Rocky Ford eighth graders, the eighth graders in general scored higher than the seventh graders. When compared to the two previous areas of Guidance Activities, the Job Getting Skills area appears to be a weaker area for most student groups. The following are examples of items that were classified in this area:

20. A brief outline of your training and work experience is called

    1. a biography.
    2. an application.
    *3. a resume.
    4. a covering letter.

Table 11

ITEMS ANALYZED BY GUIDANCE ACTIVITY

Job Getting Skills

Item Number	% Answering Correctly		% Answering Correctly		
	Grade 7		Grade 8		
	Holyoke	Rocky Ford	Holyoke	Rocky Ford	Eagle
4	69%	33%	72%	43%	53%
14	44%	83%	61%	57%	76%
16	47%	17%	31%	14%	47%
19	76%	67%	80%	43%	71%
20	20%	0%	17%	29%	12%
27	67%	33%	70%	57%	82%
42	9%	33%	20%	43%	24%
44	42%	33%	55%	57%	47%
50	42%	67%	48%	43%	53%
1	51%	17%	70%	29%	59%
3	89%	83%	94%	86%	88%
6	82%	50%	80%	29%	76%
8	69%	67%	80%	57%	76%
19	69%	83%	76%	29%	53%
21	76%	83%	89%	57%	76%
28	47%	17%	59%	57%	59%
30	60%	50%	63%	57%	59%
37	40%	17%	57%	43%	65%
38	62%	17%	63%	43%	65%
Average Percent Correct Per Item	56%	45%	62%	46%	60%

8. Most skills taught in school are useful in the world of work.

*a. Strongly Agree
b. Agree
c. No Opinion
d. Disagree
e. Strongly Disagree

The final table, Table 12, shows the items that are classified in the area of Career Information and USOE Career Clusters. The following are examples of items classified in this area.

5. A person interested in becoming a secretary should be especially good in

1. science.
*2. language arts.
3. math.
4. foreign language.

48. A doctor is required to have a license to practice medicine. This license tells us that

1. the doctor is a good one.
*2. the doctor has passed all educational steps required of doctors.
3. the doctor has learned all there is to know about medicine.
4. All of the above.

The range of average percent correct per item by all five categories is relatively small. The low score is 47% and the high score is 57%. The average score for four of the five groups is the lowest average score of all four areas for each of these groups. The Holyoke eighth graders, however, scored higher in this area than in the other three areas.

These results indicate that the Guidance Activities conducted by the CEBCEM projects or other school programs have been most successful in supplying students with Decision Making and Goal Setting experiences; somewhat less successful in providing students with Identifying Interests, Values

Table 12

ITEMS ANALYZED BY GUIDANCE ACTIVITY

Career Information and USOE Career Clusters

Item Number	% Answered Correctly		% Answered Correctly		
	Grade 7		Grade 8		
	Holyoke	Rocky Ford	Holyoke	Rocky Ford	Eagle
1	22%	50%	33%	57%	35%
3	80%	50%	70%	71%	35%
5	87%	100%	85%	86%	88%
6	29%	17%	41%	57%	47%
9	53%	50%	44%	86%	65%
15	55%	67%	52%	71%	71%
24	80%	50%	83%	43%	88%
26	71%	50%	70%	43%	71%
28	69%	33%	91%	14%	71%
31	51%	50%	52%	14%	35%
32	49%	50%	33%	43%	29%
33	40%	67%	44%	57%	53%
38	40%	17%	63%	29%	53%
46	51%	33%	52%	57%	41%
47	44%	33%	44%	57%	35%
48	71%	33%	59%	71%	18%
Average Percent Correct Per Item	56%	47%	57%	54%	52%

Clarification, and Job Getting Skills Experience; and least successful in supplying information relating to Careers and the USOE Career Clusters.

Learning and Skill Building Levels

Holyoke School District and Rocky Ford School District submitted activities to pilot test this strategy:

District	Activity Name	Number of Students	Grade Level
Holyoke School District	Work Experience in the Community	8	10
Rocky Ford School District	Shadowing for Game Management	1	10

PSE received completed student questionnaires from each student who participated in this activity. Completed employer/instructor questionnaires were also received from six employers from the Holyoke School District.

Employer Instructor Questionnaires

The Holyoke School District incorporated this strategy into their existing work experience program. They encouraged tenth grade students to become involved with the existing eleventh and twelfth grade work experience program. The students from this school district who did Learning and Skill Building Levels experiences were enrolled in a career education class in the district. While attending this class, students assessed their strengths and weaknesses through standardized interests and aptitude tests, investigated possible career choices, explored these career choices in the community, and selected a work experience to study in greater depth. Students spent approximately one class, for approximately one semester, working in the community.

Six employers who worked with tenth grade students this year in the Holyoke district responded to the employer instructor questionnaire. Of the six employers who responded, four had been involved with the school district before the 1976-77 year. One of these four was involved in supervising career education students and another one was a member of the vocational education advisory board. Five of the six respondents were familiar with career education prior to this experience. Three of the employers became involved in this program through students, two were contacted by a school representative, and one became involved through someone in his or her company. Besides being involved in the Learning and Skill Building Levels strategy, four of the six employers were also involved in the Career Exploration strategy. The majority of the employers who responded had approximately two to five students who have done Learning and Skill Building Levels at their site (this includes students who have been involved in the work experience program over the years). The employers spend approximately five to ten hours working with their students providing the following supportive services:

- discussing activities at their site;
- evaluating student's assignments;
- supervising students who are performing specific job-related tasks;
- discussing job opportunities

All six employers felt that the project staff had provided them with enough information to help them direct student activities. They expected students to acquire basic career knowledge, beginning job skills, academic skills, employability skills and career decision making skills by participating in a Learning and Skill Building Level at their site. Likewise, they felt that the employees at their site benefited through this program by an increased awareness of youth and a reduced work load.

The employers were also asked to rate the performance of CEBCEM students they had worked with in the program. Five of the six employers felt that most of the students they had worked with were able to perform the jobs they were asked to do and behaved appropriately while working. Approximately half of the employers also felt that most of the students were interested in the jobs they selected for their experiences and related the things they had learned in school to the work they had performed at the site. At least half of the employers also felt that some students, but not all students, were able to explain how they selected the jobs to study at the site and displayed good work habits on the job (such as punctuality, cooperation, and reliability). The employers were also asked to rate their interactions with the school representatives. The majority of the employers felt that the school representatives met with them regularly to discuss their participation in this program; informed them in advance when students would be working with them; were available to assist when problems occurred; and were interested in the variety of work situations that the local site could provide for students. Approximately half of the employers indicated that the school representative met with them frequently to discuss the appropriateness of the Learning and Skill Building Level experience for each student. However, over half of the employers felt that school representatives seldom, and possibly never, provided them with adequate feedback about what happened to students when they left the work experience site. Four of the six employers felt that they would offer Learning and Skill Building Level experience for students in their site next year and two indicated that they had not yet decided. Two of the six employers suggested that students should spend a little more time at the job site and that more follow-up on student's motivation and interest in a job be conducted. These modifications or changes they felt would improve the strategy based on what they had observed this year.

The Rocky Ford School District had only one student involved in a Learning and Skill Building Level experience this school year. The student was placed with a worker at the local game management center. Unfortunately, the questionnaire from this employer was not completed and instead was filled out by the student's science teacher. The science teacher's responses to the questionnaire were not used in this analysis because the questionnaire was designed to ask employer instructors specific questions and was not designed for classroom instructors.

In summary, the employers who are working with the Holyoke School District in this strategy were satisfied with the program. It appears that the Holyoke School District was able to build upon a work experience program that already existed in this school system and provide similar experiences to tenth grade students through the CEBCEM Project.

Student Questionnaires

A total of nine tenth grade students completed the student questionnaires for this strategy. This sample included the eight students from Holyoke and one student from Rocky Ford.

The best description of the difference between visiting a place of employment for a Career Exploration and visiting a site for a Learning and Skill Building Level experience was given by one student who said, "Visiting for a Career Exploration tells about the career field, while Learning and Skill Building Levels teaches job training." The majority of the students however did not indicate knowing the difference between the two strategies. The names of the business or organizations the students worked with and the type of work they performed appear in Table 13. Over half of the students responded that they visited the site where they performed their Learning and Skill Building Level experience prior to their selecting a job at that site. The majority of students indicated that their work at the site was designed by

Table 13

LEARNING AND SKILL BUILDING LEVELS
STUDENT QUESTIONNAIRES

Students' Responses To Type of Work Performed At Sites

Learning and Skill Building Levels Site	Type of Work Performed
Fabric Lane	manual labor
ABC Preschool	helped children
Florist	cleaning and deliveries
HEA	helped in warehouse
Dentist's Office	helped with X-rays
Telephone Company	helped one employee
NAPA	put stock away
Grocery Store (frozen food department)	washed station and crated onions
Coca Cola Bottling	washed trucks and sorted bottles

the employer and that they spent approximately one to five hours a week performing this work for approximately one grading period. The students also stated that their Learning and Skill Building Level experiences were set up with the employer by either the students themselves or the guidance counselor. (The guidance counselor handles the work-experience program in the Holyoke School District.) In general, the students felt that they had learned a skill (for example, working with children, stocking shelves, working with electrical equipment, etc.) and in a few cases learned how to work with other people from this experience. The only required written work mentioned by the students was time sheets, and one student indicated that he or she did a special project (bulletin board) related to the Learning and Skill Building Level experience. Approximately half of the students rated doing a Learning and Skill Building Level experience as being more interesting or much more interesting when compared to their other school work. A third of the students felt that they would like to do another Learning and Skill Building Level experience and two thirds of the students felt that they would encourage other students to do this. The most valuable part of this experience for the students was learning about the job. In addition to this, one student mentioned learning to work with others and another student mentioned learning if he or she liked the job as a means for evaluating future plans. Only two students indicated that they would make changes in the strategy. These included the desire to get paid for working and to learn about ways to get a job.

The students were also asked to agree or disagree with twelve statements concerning their Learning and Skill Building Level experiences. The percentage of students who responded in each of the five categories appears in Table 14. In general, students' attitude toward their experiences in this

Table 14

EMPLOYER SEMINARS
STUDENT QUESTIONNAIRE

Student's Attitudes Toward This Strategy

Question	% of Student Responses by Option Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1. Doing a job for an employer is a good learning experience for someone still in school.	56%	44%	0%	0%	0%*
2. Much of what I learn in school I can use in a job.	0	44	33	11	11
3. I know what courses I should take in school to prepare for careers that interest me.	22	33	44	0	0
4. It is beneficial for me to know what jobs I would not like to have.	44	56	0	0	0
5. I'm not really going to worry about choosing an occupation until I'm out of school.	0	0	11	44	44
6. Doing a Learning and Skill Building Level experience helped me realize what working on a job fulltime would be like.	33	33	22	0	0
7. I would rather do regular classwork than spend more time at a work site.	0	11	11	44	33
8. Working at a work site helped me to learn more about myself.	33	11	56	0	0
9. I can learn a lot working by myself.	22	11	22	33	0*
10. Doing a Learning and Skill Building Level experience helped me understand why my school work is important.	33	11	22	22	0

Table 14

(Continued)

Question	% of Student Responses by Option				
	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
11. Doing a Learning and Skill Building Level experience helped me make career plans.	22%	44%	22%	0%	0%*
12. I am more confident about my career goals now because I've tried working in a job related to my career goals.	22	56	0	11	11

*No Response 11%

strategy were very positive. The majority of students felt that doing a job for an employer is a good learning experience for someone still in school; that it was important to choose an occupation or a career while in school; and that they were more confident about their career goals because they had tried working in a job related to their career goals.

In summary, the students responded favorably to this strategy; felt they had benefited from their experiences; and would encourage other students to participate in the program. The Learning and Skill Building strategy developed by the Holyoke School District appears to be an effective means for providing EBCE experiences to tenth grade students by modifying an existing school program.

Employer Seminars

Two districts submitted activities to pilot test the Employer Seminars strategy:

District	Activity Name	Number of Students	Grade Level
Holyoke School District	Developing and Understanding of Health Occupations	12	11-12
Rocky Ford School District	Bringing Up the Babies	17	11
	DECA Business Class	17	11

PSE received completed student questionnaires from both districts and five employer instructor questionnaires from the Rocky Ford School District. As you can note in the chart above, the students involved in pilot testing this strategy were in the eleventh and twelfth grades and slightly older than the target population of this project (students in grades 7-10). Therefore, the responses to the student and employer instructor questionnaires may imply appropriateness for an older group of students rather than the target population.

Employer Instructor Questionnaires

Employer instructor questionnaires were completed by five employers from the Rocky Ford School District. Four of the five employers responded that they had worked with this school district before in the capacity of speakers. They had been familiar with career education before this project and became involved in this program through contacts with a school representative or someone they had worked with. They met with a representative from the school district approximately one time before participating in an Employer Seminar. At that time, the representatives from the school discussed how the students would prepare for the seminar and the follow-up activities in which the students might participate. The topics which were discussed most frequently at the Employer Seminars were:

- Types of work
- Chances for advancement
- Career goals and strategies
- Educational requirements
- Work experience requirements
- On-the-job training
- Working conditions
- Management-labor relations.

In general, the employers felt that the students seemed interested and were able to ask questions at the seminar. When asked if they planned to conduct another seminar in this area, two of the employers responded that they would, two did not answer, and the remaining one said no (the reason being he or she was too busy).

Unfortunately, employers from the Holyoke School District did not complete questionnaires and therefore comparisons cannot be made across the two school districts. In summary, the employers from the Rocky Ford School District responded favorably to the students' participation in this strategy, but only 40% indicated that they would participate as part of this strategy in the coming school year.

Student Questionnaires

A total of 46 eleventh and twelfth grade students completed the questionnaires for this strategy. They indicated that they learned about Employer Seminars through their teacher and had attended at least one and as many as four Employer Seminars. In most instances they were not required to prepare for the Employer Seminars or to participate in follow-up activities after the seminars. The most frequently discussed topics at these seminars were as follows:

1. Type of Work
2. Work Experience Requirements
3. Career Goals and Strategies
4. Working Conditions

Compared to other school work, attending Employer Seminars was considered by most of the students to be more interesting or much more interesting. However, only about a half of the students indicated that they would enjoy attending more Employer Seminars and would encourage other students to attend these seminars. A significant number of students responded to these two questions with "maybe" rather than "yes." A majority of the students felt that the most valuable part of this experience was learning about different types of jobs and recommended that Employer Seminars might be improved by allowing for more time and information to be given.

The responses of the students to ten statements concerning the Employer Seminars are shown in Table 15. In general, the students responded favorably toward the Employer Seminars. A majority of the students felt that talking with employers gave them a better understanding of the world of work and offered them information that was interesting and understandable. The students also felt comfortable talking to employers about job opportunities and the world of work and considered themselves old enough to be making career choices. The topics which the employers discussed were important to the student and different from the topics usually discussed in regular classes. However, when compared to topics of regular classroom discussions, the students were somewhat less sure if the topics they discussed in the seminars were as important as the topics they discussed in regular classes. Over half of the students felt that small group discussions with employers were more interesting than resource speakers who talked to large groups, but 24% of the

Table 15

LEARNING AND SKILL BUILDING LEVEL
STUDENT QUESTIONNAIRE

Student's Attitudes Toward This Strategy

	% of Student Responses by Option				
Question	Strongly Agree	Agree	Opinion	Disagree	Strongly Disagree
1. Talking with the employers in the seminars gave me a better understanding of the world of work.	20%	61%	13%	0%	2%*
2. Working conditions are pretty much the same for most people.	2	9	7	65	13
3. The topics we discussed at the seminar are as important as topics we discuss in school.	22	30	33	11	0
4. I would feel comfortable talking to other employers about job opportunities and the world of work.	24	43	20	9	
5. I am too young to be considering career choices and planning.	0	0	4	39	50
6. Small group discussions with employers are more interesting than resource speakers who talk to large groups.	15	43	24	9	2
7. The topics which the employers discuss will be important to me when I look for a job in the future.	26	54	7	7	0
8. I feel that attitude has little to do with keeping a job.	2	9	4	15	63
9. I feel that anything I can learn from employer seminars I can learn in my regular school classes.	4	0	11	65	13
10. The information which the employers gave us was inesting and understandable.	22	54	13	2	2

*The No Response varied from 4% - 7%

students had no opinion about this statement. It is possible that students did not see any difference between resource speakers and Employer Seminars.

The data received from both employers and students does not describe the details of the three Employer Seminars. The responses from both groups seem to indicate that Employer Seminars during this pilot testing were the same as resource speakers used in many career education activities. The NWREL guidelines suggest that Employer Seminars be used to bring together several employers who can present different perspectives on topics and issues relating to the world of work. These seminars are to be held with small groups of students who can interact freely with the employers who are conducting the sessions. The topics to be discussed during these seminars should include issues (such as job discrimination, management-labor relations) that allow for comparison across several different career clusters or occupations. The responses of both students and employers seem to imply that the employer seminars during this pilot testing stage focused primarily on descriptions of work performed by individuals with different occupations or careers. The students enjoyed these sessions but their support of the strategy in terms of willingness to participate in other seminars was limited. Consideration should be given to developing this strategy into experiences for students which would include more than resource speakers.

Competency Certification

The Holyoke School District submitted two activities to pilot test the Competency Certification strategy. The following shows the activity names and the number and grade levels of students involved:

Activity Name	Number of Students	Grade Level
Developing Communications and Employability Skills	8	9-10
Developing Banking Skills	19	7-8

PSE received completed student questionnaires and teacher and CEBCEM staff questionnaires for both of these activities. Since this strategy was only pilot tested in the Holyoke School District, the responses on the questionnaires can only be used to compare the two activities carried out in this district. The analysis, however, may be useful to other districts as they plan to develop Competency Certification in their districts for the next year.

Teacher and CEBCEM Staff Questionnaires

Both teachers who used this strategy learned about it through their in-service class conducted in the beginning of the school year. They worked directly with students and community representatives. For the activity "Developing Banking Skills," the community representative was responsible for certifying students. In the other activity, a community representative was used to give students suggestions and answer questions. Therefore, community representatives were used in two different ways in pilot testing this strategy. Both teachers felt that the majority of their students were able to work independently and understood why the competency certifications (Completing Application Forms and Banking Forms) were important for them to achieve. About half of the students were able to locate and use their own resources and these resources were primarily printed or audio/visual materials. Only a few students used community representatives for resources. Very few of those students who were certified by a community representative made their own arrangements for the certifying session. Most students completed the competency certification within a reasonable amount of time.

The teachers were also asked to evaluate the interaction between the community representatives, students, and themselves. Both teachers felt that the community representatives were able to suggest required skills or abilities for the Competency Certifications that were appropriate for students of this age level and to provide information for the students as they prepared for the certification. Neither of the teachers felt that the community representatives provided students with opportunities to practice the skills, but they felt that the representatives were very interested in working with the students on this strategy. Competency Certifications were developed for four areas: filling out applications; check writing; filling out deposit slips; and balancing checking accounts. Both teachers felt that their students were somewhat interested in receiving Competency Certification and that they would include this in their program next year. Modifications or changes were offered by both teachers. One teacher felt that community resources should be used more and the other teacher felt that students would benefit from going directly to the bank to be certified in their banking competencies.

In conclusion, these activities show two levels of community involvement in the strategy. In both activities, the students worked with the community representatives in developing the skills necessary to achieve competency certification, but only in the banking activity did the students actually recieve the certification from the community representative.

Student Questionnaires

Students involved in both activities learned about Competency Certifications through their teachers. All students in the communications activity stated they had completed competency certification in Application Forms, but less than 30% of the students involved in the banking certification indicated that they had received competency certification in any of the three areas identified by the teacher (balancing checkbooks, writing checks, and writing deposit slips). In preparing for Competency Certification,

89% of the students attended classes;

21% of the students worked individually with teachers; and

36% of the students used community resources.

None of the students indicated that they worked with tutors or did library research. All of the students felt that they received their competency certification from their teachers and not from a community resource person. This contradicts the statement made by the teacher who said that the banking certifications were issued by the community resource person. The students who were on the banking certification listed the following three things as things they had learned while working on the competency certification:

1. Writing Checks
2. New Bank Words
3. Jobs in the Bank.

The students who worked on the communications certification listed the following four things they had learned while working on that certification:

1. How to Fill Out an Application Form
2. What Questions to Ask During an Interview
3. The Importance of Appearance During an Interview
4. The Importance of Neatness in Filling Out an Application Form.

The students who worked on the banking certification felt that compared to their other school work, working on this competency certification was "less interesting" or "much less interesting." The students who had worked on completing the communications certification however, felt that this work was "about as interesting" or "more interesting" than their other school work. The students from the second activity also felt that they would encourage other students to get involved in doing a competency certification. However the students involved in the banking certification only indicated that they "might" encourage other students.

The students were also asked to agree or disagree with ten statements concerning this strategy. The distribution of student responses across the five categories from strongly agree to strongly disagree appear in Table 16 and are displayed according to the activities in which the students participated. Over 75% of the students from both activities felt that being able to work on their own is important to them and that all students should have the opportunity to carry out their own projects. Over 50% of the students felt that it was important to use a variety of resources when researching a topic and that it was necessary for students to be able to work well with adults. Also, 50% of the students felt that they could clearly define several of their goals; could learn a lot working by themselves; and were able to set realistic goals for themselves. Although both groups of students felt that being able to work on their own was important to them, only 53% of the students from the banking activity and 44% of the students from the communications activity felt that they enjoyed planning their own school work and a large majority of the students from both activities either had no opinion or preferred to do regular classwork over working on competency certifications. The only difference in responses between the two groups showed up

Table 16

COMPETENCY CERTIFICATION
STUDENT QUESTIONNAIRE

Student's Attitude Toward This Strategy

	% of Student Responses by Options									
	"Developing Banking Skills"					"Developing Communications & Employability Skills"				
Question	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1. Being able to work on my own is important to me.	42%	42%	16%	0%	0%	78%	22%	0%	0%	0%
2. I enjoy planning my own school work.	0	53	37	5	5	22	22	56	0	0
3. It is important to use a variety of resources when researching a topic.	0	68	32	0	0	33	56	11	0	0
4. I feel I can clearly define several of my learning goals.	5	47	26	21	0	22	67	11	0	0
5. All students should have the opportunity to carry out their own projects.	37	53	10	0	0	44	56	0	0	0
6. I can learn a lot working by myself.	16	53	10	16	5	33	44	22	0	0
7. It is not necessary for students to be able to work well with adults.	5	5	16	47	26	11	0	11	44	33
8. I am able to set realistic goals for myself and to reach them.	0	53	47	0	0	22	44	33	0	0

Table 16

(Continued)

Question	% of Student Responses by Options									
	"Developing Banking Skills"					"Developing Communications & Employability Skills				
	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
9. I would rather do regular classwork than work on competency certifications.	21%	37%	21%	16	5%	11%	0%	56%	33%	0%
10. The areas that were selected for competency certifications are important.	0	47	37	16	0	11	67	22	0	0

concerning the importance of the areas selected for competency certification. The area selected for the communications competencies (Filling Out Application Forms) was considered important by 78% of the students; while only 47% of the students from the banking competency considered its areas (Balancing Checkbooks, Writing Checks, and Filling Out Deposit Slips) important.

In summary, the ninth and tenth grade students who completed the Competency Certification in communication skills were more involved and more interested in this strategy, than the seventh and eighth grade students who worked on banking skills. The project staff should consider the appropriateness of this strategy for seventh and eighth grade students as well as the difference in methodology used to present Competency Certification to both groups of students. It is possible that certain competencies are more appropriate for seventh and eighth graders, while others are better for the older students.

Career Exploration

The Rocky Ford School District submitted three activities to pilot test the Career Exploration strategy:

Activity Name	Number of Students	Grade Level
Field Explorations	14	7-8
Preparation for Public Speaking	7	10-11
Bringing Up the Babies	13	11

PSE received completed student questionnaires for each of these activities and 14 Employer instructor questionnaires. Since activities for this strategy were submitted by only one district, the three activities in this strategy will be compared to each other and the analysis will be able to help other districts in planning activities for the coming school year.

Employer Instructor Questionnaires

Fourteen employers from the Rocky Ford School District completed questionnaires concerning this strategy. Eight of the fourteen employers had worked with this school district before and five were already familiar with career education. Most of the employers became involved in this program through a school representative and have worked with at least one and up to twenty students during this school year. Students contacted the employer by letter, by phone, or in person. The employers typically spent a half an hour to two hours with students but do not have a specific program for students to follow during this time. Most employers, however, do discuss with students the activities at their employment site and the job opportunities related to their business or organization. Approximately 36% of the employers supervised students who performed specific job-related tasks during their Career Explorations and about 14% of the employers discussed student's personal problems; tutored students in academic areas; or assisted students in non-job-related assignments. As a result of participating in a career exploration, the employers expect students will learn about the types of jobs, how to apply for a job, and appropriate behavior and appearance for visiting a work site. The employers also expect that students will be able to decide if they are interested in a career related to their career exploration. In most instances, the employers feel that other employees at their sites have benefited through an increased awareness of youth and an increased interest in their own work.

The employers were also asked to rate the performance of the CEBCEM students they have worked with in the program. In general, the employers felt that most of the students behaved appropriately during their visits and understood why they were visiting a place of employment. They also felt that most of the students were very interested in learning about the business or organization and were prepared to ask questions during their visits. Half of the employers did not respond to a question concerning the students ability to follow the format for career explorations designed by the school. This is probably because the school had not designed a standard format for students to use when participating in a Career Exploration. The employers also rated their interaction with the school system on several points. Most employers felt that the school representatives always informed them in advance when students would be visiting their work sites and were available to assist them when problems occured. Only 36% of the employers felt that the school always met with them to discuss their participation in the strategy of career exploration or that school representatives were always interested in the variety of work situations that the business or organization could provide for students. Likewise, only a few employers stated that the school provided them with adequate feedback about what happens to students when they leave the site or that the school had met with them often to discuss the effectiveness of the program. These results seem to indicate that the employers feel that the program had provided students with valuable learning situations, but the local project has not involved the use of the employer instructor in feedback, evaluation, or strategy development. Even so, 79% of the employers felt that they would definitely offer Career Explorations for students at their site and would recommend this strategy to other employers. Only a few employers offered modifications or changes in the strategy and these are as follows:

1. Students should visit the worksite at least twice.
2. The project should be better publicized.
3. Teacher/employer interaction should be increased.

In summary, the employers in Rocky Ford support the Career Exploration strategy and are very willing to participate in the program during the next school year. Their overall responses seem to indicate that the program should develop the Career Exploration strategy so that both employers and students are aware of what is to happen during a Career Exploration and to insure that the students' experiences are similar. The employers also seem to be very interested in working more closely with the school system in providing opportunities for students.

Student Questionnaires

A total of 34 completed student questionnaires were received by PSE for this strategy. In general, the students learned about Career Exploration from their teachers and had completed at least one or as many as seven Career Explorations before completing the questionnaire. As is indicated by the name of the activities, the students visited a variety of worksites during their Career Exploration. Students participating in the "Field Exploration" activity visited worksites of their own choosing. Those students involved in the "Public Speaking" activity participated in mock interviews and those students in the "Bringing Up the Babies" activity visited places of employment related to childbirth and childcare. Overall, the Career Explorations were set up with employers by the teacher. Students in the "Field Exploration" and "Bringing Up the Babies" activities were required to hand in written reports. In the case of the "Field Exploration" activity, these reports were often journals. Most of the students did not do a project related to their Career Exploration, and those that did were students from the "Field Exploration" or "Bringing Up the Babies" activities. Most of the students indicated that the work they did concerning their Career Exploration was evaluated by the teacher with the exception of the students who were in the "Public Speaking" activity, who indicated they were evaluated by an employer. Compared to other school work, most students felt that doing a Career Exploration was more interesting or much more interesting and also indicated that they were interested in doing more Career Explorations and would encourage other students to get involved with this strategy. The students from the "Field Exploration" and "Bringing Up the Babies" activities felt that the most valuable part of their experiences was learning about the different jobs they observed. The students from the "Public Speaking" activity, on the other hand, felt that learning the appropriate behavior during an interview and the skills of filling out an application were the most valuable parts of their experience.

Students were also asked to agree or disagree with 15 statements reflecting attitudes or skills used in this strategy. Responses for all 34 students were combined and are shown in Table 17. Over 75% of the students felt that

Table 17

CAREER EXPLORATION
STUDENT QUESTIONNAIRES

Student's Attitude Toward This Strategy

Question	% of Student Responses by Option				
	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
Attitude					
1. Being able to work on my own is important to me.	35%	53%	9%	0%	0%*
3. It is the teacher's job--not the student's--to set up learning activities.	9	18	24	32	12
6. All students should have the opportunity to visit work sites and observe.	32	47	18	0	0
7. Projects done at work sites can just as easily be done in school.	6	12	29	35	15
11. Doing a Career Exploration is more interesting than just going on a field trip.	15	35	17	12	3
14. I would rather do regular classwork than spend time at work sites.	0	3	24	44	15
15. I was able to learn more about working by talking to employers and employees than I would learn in my classroom.	24	32	32	0	0
Skills					
2. I enjoy planning my own schoolwork around topics which interest me.	24	38	32	3	0
4. It is important to use a variety of resources when researching a topic.	29	47	18	3	0
5. I feel I can clearly define several of my learning goals.	18	47	29	3	0

* The No Response rate varied from 3% - 18%.

Table 17
(Continued)

Question	% of Student Responses by Option: Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
8. Doing a Career Exploration helped me to understand myself better	15%	26%	41%	6%	9%
9. I can learn a lot working by myself.	12	24	21	15	6
10. Being able to evaluate your own work is not important until a student is ready to graduate from high school.	12	0	24	38	24
12. I felt confident setting up my own Career Exploration.	6	26	47	9	3
13. Doing a Career Exploration helped me to make my own career plans.	15	35	35	6	0

being able to work on their own was important to them and that all students should have the opportunity to visit work sites and observe workers. Yet, only 50% of the students felt that projects done at work sites could not be done just as easily in school; that doing a Career Exploration is more interesting then just going on a field trip; or that they could learn more about working by talking to employers and employees than they would learn in the classroom. Approximately 60% of the students indicated that they would rather spend time at work sites than do regular classwork and approximately 25% of the students had no opinion on this question. Also, approximately 25% of the students had no opinion concerning whose job it was to set up the learning activities--teacher or student. Twenty seven percent of the students indicated that it was the teacher's job. The students were also asked to give opinions concerning the importance of certain skills as well as to assess their ability to use certain skills. Over 75% of the students felt that it was important to use a variety of resources when researching a topic and a majority of the students felt that being able to evaluate their own work was important while students were in high school. Over 60% of the students indicated that they enjoyed planning their own school work around topics that interest them and could clearly define several of their learning goals. Only 50% of the students felt that doing a Career Exploration helped them to plan their own careers. Even fewer students indicated that doing a Career Exploration helped them to understand themselves better. A large percent of the students, between 41% and 47%, had no opinion concerning their ability to learn while working by themselves or concerning their confidence in setting up their own Career Explorations. This implies that students may not have had the opportunity to work by themselves or to set up their own career explorations.

In summary, the activities submitted for this strategy were enjoyed by the students. Students were able to indicate what benefits they had received for their experiences. The "Public Speaking" activity should possibly be reclassified. Instead of following the procedures for the Career Exploration strategy, it appears to follow the guidelines for a Comptency Certification. Students could receive certification in interviewing techniques by being interviewed by a community representative/employer.

Analysis of the Jefferson County School District Test Results

The CEBCEM Project operated in Jefferson County School District conducted their own pilot testing. Data was collected from three sources: students, community instructors, and parents. The local program developed its own questionnaires; administered these to the target populations; and tallied the responses. The following is PSE's analysis of these data.

Program Description

During the 1976-77 school year, the Jefferson County Program worked with students in the eighth and ninth grade in one junior high and in the tenth grade in one senior high. Students were selected to participate in both the junior high or senior high program. Those students were then pulled out of the regular classrooms and were assigned to the Career Learning Center set up by the cadre teachers. Students spent approximately nine weeks at the center and had the opportunity to participate in several strategies. Those strategies identified by the local program were Group Guidance Activities, 48 Evaluations, Journals, Employer Sites, and Guest Speakers.

Student Questionnaires

Approximately 43 students from Wheat Ridge Junior High School completed the student questionnaires. (The completed questionnaires from the high school program were not included in this analysis.) The questionnaire contained eight sections concerning the ECC program (Exploring Careers in the Community). These sections contained questions that focused on the following:

- Employer Sites
- Employer Packets
- Group Guidance Activities
- Group Guidance Evaluation Forms

- 48 Evaluations
- Journals
- Guest Speakers
- Other Recommendations

The students' responses indicate that the average student spent approximately 18 days visiting employer sites during the nine-week program and visited approximately 11 sites averaging approximately two days at each site. The questionnaire asked students to name at least three sites that they felt provided them with interesting experiences. Twenty-six different sites were mentioned by the students and the following were mentioned most frequently:

- John Robert Powers
- Pepsi
- State capital

Students were also asked to comment on the Employers Packets they used during their trips to the employer sites. The packets contained one form to be filled out by students on each of the four days making up a visit to an employer site. The responses were tallied according to the number of Day 1, Day 2, Day 3, or Day 4 forms the student had completed during the program. The results indicate that the students did not have to complete all four forms at each employer site. Therefore, the students completed more Day 1 forms than Day 4 forms. The average number of forms per student appears as follows:

Forms	Average # of Forms Per Student
Day 1	6
Day 2	4
Day 3	4
Day 4	1

The value and need for these packets were questioned by the students when they offered suggestions for improving both the packets and the visits to the employer sites. Approximately half of the students suggested that they do not need to fill out the packets at all and about 27% of the students felt they could make up their own questions which would relate to the employer sites. It should be noted that, at least at the junior high level, the students selected to participate in the ECC program were above average students and in that sense more capable to work independently than average students might be. However, the use of the Day1-Day 4 forms, as well as the forms themselves, should be evaluated and modifications considered. It may be that Employer Packets should be used by all students in the beginning of the program to orient them and then, as students become skilled in visiting employer sites, the student could design his or her own questions and experiences.

The second strategy reviewed by students was Group Guidance Activities. Overall, the students averaged about 20 Group Guidance Activities each. Twenty-three different activities were listed as being the most beneficial by at least one student and 38 different activities were named as being the least rewarding by at least one student. Table 18 displays the 9 activities that were mentioned as being most beneficial and the eight activities that were listed as being least rewarding by at least three or more students. One activity, 5 Cups of Me, was named as being most beneficial and least rewarding. The students' recommendations for this strategy suggest that the number of sessions be reduced and the evaluation of the sessions contain different questions or be eliminated. Beyond this activity, the ones named for either category were unique.

Another strategy assessed by the students was 48 Evaluations. This strategy was a tool for helping students organize information contained in the resource

Table 18

GROUP GUIDANCE ACTIVITIES

Ranking of Students' Opinion for Individual Activities

Most Beneficial	Least Rewarding
Resumes	Tombstone
Auctions	5 Cups of Me
Application	School Report Card
Acting Out The Parts	A Rose by Any Other Name
Feelings Chart	Weekend at Estes Park
The Moon	Day Dreaming
5 Cups of Me	People Who Fix Things
Poems	Here Today Gone . . .
Personality Portrait	

center. The average number of evaluations completed per students was 48. Approximately 30% of the students felt that this strategy was effective and that they had learned a great deal about careers in which they might be interested in.

Students also commented on the Journals strategy; over 50% of the students felt this strategy was beneficial to them. The students wrote journals daily and averaged approximately 16 minutes per day doing this.

Another strategy which was part of the ECC program was entitled Guest Speakers. Sixteen different Guest Speaker sessions were named by at least one student as the most rewarding session. Officer Flynn and the mortician were named most frequently (named by approximately 30% of the students). The next most frequently mentioned speakers were the banker and the representative from Coors. The geologist, taxidermist, and male nurse were the three most frequently named Guest Speaker sessions considered by the students to be least rewarding. About 20% of the students felt that the Guest Speaker strategy could be improved if the students had the option to attend the sessions or not; if there were not as many sessions; and if the speakers were more interesting people.

The final section of the student questionnaire asked students to make recommendations for the ECC program for the next year and also to list the areas of the program that were most rewarding to them. In summary, the students most frequently commented that changes should be made in the transportation procedures and use of Employer Packets. Approximately 11% of the students felt that students should have the opportunity to go to more Employer Sites; students should have the choice to decide not to go to an Employer Site if they were not interested; and that the ECC program could have more organization. Based on the students responses to the final question ("Please write down all of the areas of the ECC program that were rewarding to you"), the strategies used by the ECC program would be ranked as follows: 1) visiting employer sites, 2) group guidance activities,

3) 48 evaluations, 4) Guest Speakers, 5) Journals. Several of the students felt that the entire ECC program was rewarding to them. Specific comments to this question include the following as rewarding parts of this program:

- The practice students had in completing written work;
- The opportunity students had in meeting new people; and
- The experience of working on their own.

In summary, the students found the ECC program to be a valuable program for junior high students. Many of them were able to offer constructive criticism and suggest improvements for future programs.

Community Instructor Survey

Community instructor surveys were completed by 37 individuals who had worked with the junior high ECC program. Over 85% of these community instructors provided the following services for students:

1. Give general information about their company, such as history, products, or services provided and economic or social trends that affect their organizations.
2. Give information about managing their organization, including organizational structure, financial information, and personnel practices.
3. Give tours and brief explananations of the whole organization.
4. Give information about job opportunities in their organization.
5. Allow students to get detailed information about one or more departments in their organization, including such items as departmental organization, types of jobs, special equipment and tools, worker tasks and relationships, and types of skills needed by workers.

Sixty-five percent of the community instructors allow students to spend time with individual workers to find out about their jobs and their lifestyles. Only 35% of the community instructors allow students to try out some simple job-related tasks. In general, the employers felt it was more important to give information about the company and one or more of its departments than to give information about managing an organization, provide tours of the whole organization, or give information about job opportunities. When asked what they expected students to learn at job sites that they couldn't learn as well in the regular classroom, 75% of the community instructors indicated that students could gain firsthand knowledge of demands in a real world. A large number of community instructors also felt that students could gain information about how the company is organized and managed, a knowledge of how basic skills are used in real life, and obtain general information about the company or organization. A significantly smaller number of instructors felt that students would learn more about working with others, how the free enterprise system works, self discipline, or on-the-job skills. Approximately 49% of the instructors felt that the ECC students they had worked with had definitely benefited from visiting their work site.

Overall, the employers felt that most students who visited their sites were prepared to ask questions, behave appropriately, and understood why they were visiting the places of employment. They also felt that some, but not all, students were very interested in learning about their business or organization and were capable of following the format for career explorations designed by the school. A majority of the community instructors felt that school representatives had informed them in advance when students would be visiting their work sites and were interested in the variety of work situations their business or organization could provide. Only 22% of the community instructors indicated that the schools representatives met with them periodically to discuss their participation in the program or the effectiveness of the program for the students visiting them. The community instructors also indicated that the school representatives did not provide them with adequate feedback about what happens to students when they leave their sites.

Most community instructors felt that other employees at their sites had benefited from having students visit their work sites, mostly through an increased awareness of youth and increased interest in their own work. Ninty-five percent of the community instructors indicated that they would continue participating in the ECC program. They felt that the program was worthwhile and that their participation was a community service. In general, the community instructors felt that the greatest strength of the program was in providing students with the opportunity to learn about a variety of careers and about real life situations. The greatest weakness of the program, they felt, was its lack of feedback to the instructors aboiut students. Sixteen of the 37 community instructors added additional comments and recommendations about the program. The majority of these were supportive and reflect the enthusiasm the employers have for the ECC program. Some of the comments which the project should consider are summarized as follows:

- It may be necessary for the project personnel to advise and screen students as they are selecting their employer sites. Some employers have definite preferences concerning the type of student they would like to work. It would be to the program's advantage with which to understand this and assist students in selecting sites where they will receive the most appropriate attention.

- Many of the respondents are interested in follow-up feedback concerning students at later dates. A means for providing this information to the community instructors should be devised. It could be through a newsletter, a letter from a student who has visited the site, a group meeting of community instructors, etc.

- It may be beneficial for project personnel to provide community instructors with suggested activities that are appropriate for the students who will be visiting them. It appears that some instructors found junior high students' needs different from that of senior high students.

- Students should be aware of the organization's general purpose and activity before they arrive on site. A few of the instructors felt that students arrived on site without knowing why they had selected that site.

- Along with visits to employer sites, students could benefit from visiting training sites. For example, the students who have visited an employer site and are interested in a career they have observed would benefit further from visiting a setting in which a person might be trained for that career.

In summary, those individuals who responded to the community instructor survey are enthusiastic in their support of the program and are able to offer valuable suggestions and recommendations for future project efforts.

Parent Opinion Survey

Thirty questionnaires were received from parents whose children attended the junior high ECC program and fifty-five questionnaires were received from parents whose children attended the senior high program. Parents were asked to rate the program itself and their students' performance in the program compared to regular classes and their students performance in those classes. In general, the parents of students in the senior high program tended to have higher opinions of the program than the parents of the students in the junior high program. Over 71% of the parents whose children were in the senior high program felt that the experiences their sons or daughters received through the ECC program were better or much better than the experiences their students had had in the past. Only 58% of the parents whose children were in the junior high program felt this way about the program.

Likewise, only 54% of the junior high parents felt that their children were more motivated to learn while in the ECC program than in the regular school program; while 73% of the senior high parents felt that the ECC program was more motivating. A large percent of the parents from both groups, however, felt that when compared to the regular classes, the ECC program provided their sons and daughters with more opportunities to learn about careers. Likewise, 67% of the junior high parents and 74% of the senior high parents also felt that the ECC program provided their children with more opportunities for general learning such as basic skills and life skills. A majority of parents from both groups also felt that their children liked, the ECC program better than the regular school program.

Parents were also asked to comment on how often their sons or daughters talked to them about what was going on in school before entering the program and while in the ECC program. Approximately 50% of the parents whose children were in the junior high program indicated that their children had talked about regular classes daily; while participating in the ECC program, 70% of the parents indicated that their sons or daughters talked about what was going on in school on a daily basis. The change in daily conversation is much greater at the high school level. Only 22% of the parents indicated that their students talked about school on a daily basis before entering the program and 58% of the parents indicated that their students spoke about what was happening in school on a daily basis while in the program.

Most parents felt that their students were helped by the program in forming career plans. However, only 47% of the senior high parents felt that they received enough information about their sons' or daughters' progress in the program and only 11% of the parents indicated that they met frequently with the staff members. These percentages are slightly higher for the junior high parents; 60% of the parents thought that they had received enough information about their children's progress and 13% felt that they had met frequently with staff members. When asked if they had it to do over again, would they have their sons or daughters participate in the ECC program, 63% of the junior high parents indicated that they would and 89% of the senior high parents indicated that they would.

The greatest weaknesses of the ECC program (mentioned by over 50% of the junior high parents) were problems in the organization of the program and a lack of variety in job sites which meet the students' interests. The junior high program was the initial program and probably did suffer from problems in organization and variety of job sites. Only 7% of the senior high parents indicated that there were problems in the organization of the program implying that many of those problems had been eliminated.

The lack of variety of job sites, however, was still apparent at the end of the school year with 33% of the senior high parents indicating this as a weakness. Over 75% of the parents from both schools felt that the strengths of the ECC program were that students learned 1) about a variety of careers; 2) about real life situations and responsibilities; and 3) by having the opportunities to work with adults.

Over half of the parents indicated that they noticed no negative changes in their sons or daughters as a result of participating in the ECC program. On the other hand, over fifty percent of the parents felt that their sons or daughters had a better understanding of jobs and more realistic attitudes towards life, work, etc. Slightly less than fifty percent of the parents felt that their children had gained greater maturity or self-direction, greater self confidence, and a clearer direction about their futures as a result of participating in this program. Only 14% of the parents felt that their children's basic skills had improved while in this program. Approximately 80% of the parents felt that their sons or daughters had acquired more first-hand knowledge about one or more businesses than they would have received from a regular school program.

Many of the changes that were suggested by parents of junior high students focus on the problems of getting a program started--better organization, better matching of students to job sites which offer careers that interested them, and better advise and follow-up on keeping up with regular classes while in the program. The junior high parents were also concerned about the problems that occurred in transporting students of this age level to job sites. Both junior high and senior high parents felt that there was a need for a better range of job sites and that parents should be more involved in the program. The following are suggestions offered by parents of junior high or senior high students which should be considered:

1. Students should spend at least two days on the job site when the first day involves only a tour.

2. Students should become involved with what is going on at the job sites rather than just watch. A suggestion for this involvement was given by one junior high parent who recommended that students be given a particular problem to solve at each job site.

3. Parents/teacher conferences should be frequent and provide parents with information on the progress of their children and reassure them that students are developing academic skills.

4. Students should be given the opportunity to explore a few careers that are particularly appealing to them in greater depth.

5. Students, at the high school level at least, should be offered this program during the first semester so that they have an opportunity to follow through on a career that interests them and possibly get a part-time job in that area during the second semester.

In summary, most parents from both the junior high or senior high programs felt that their children had benefited from the program. Their suggestions and reccommendations indicated a sincere interest in improving the program for other students and definitely supported its continuation as a part of the Jefferson County School District's curriculum. However, consideration should be given to examining the junior high program to determine if the program as it has been revised during the second semester in the high school will be appropriate for junior high students in the 1977-78 school year.

Summary

The strategies used by the ECC program in Jefferson County compared to the strategies used by the three other Colorado school districts are as follows:

ECC Strategies	CEBCEM Strategies
Employer Sites and Employer Packets	Career Explorations
Group Guidance Activities	Guidance Acitivities
Journals	Journals
Guest Speakers	Employer Seminars
48 Evaluations	Projects

To date, the ECC program has not developed the CEBCEM strategies of Learning and Skill Building Levels or Competency Certification. During the 1977-78 school year, it is expected that the ECC program will include these two strategies when working with students. During the pilot testing of strategies, the Jefferson County School District offered a unique program when compared to the three other Colorado districts in that the students involved in the ECC program were taken out of regular classes and received all their instruction via the ECC program. During the 1977-78 field testing, it is hoped that the Jefferson County program will be able to continue offering this type of learning situation. However for field testing, the Jefferson County program should follow the same field testing procedures and collect the same data as the other Colorado districts so that comparisons can be made across all learning environments.

As a result of the pilot test findings modifications were made in the curriculum and the process of implementing those strategies pilot tested.

Each strategy was more clearly defined and options for implementation, according to the strategy utilization at each of the four sub-sites, were identified. (See Appendix E.1 to E.10) After considerable discussion the strategy of "Classes" was eliminated from the learning path due to its nebulousness during pilot testing, (See Chart 4.96)

After concluding these changes, the basic curriculum for CEBCEM was written and printed. A training model was developed for use with the training of additional teachers from the four sub-sites (see Appendix F.1 to F.7 for Training Workshop Agenda). The local coordinators and members of the initial cadre teachers developed training packets relating to each strategy and presented this material to small groups during the Workshop. The results of this Workshop (see Appendix G.1 to G.9) provided strong indicators of the direction further training sessions will take during the dissemination of the Colorado Experience-Based Career Exploration Model Project.

E. Conclusions, Implications and Recommendations

Twelve recommendations for the second year of the project were made by the third party evaluator:

> "During its first year of operation, CEBCEM held as its primary goal the identification, pilot testing, and revision of strategy alternatives to meet desired EBCE program components. We have reviewed the data reported to surface recommendations which can be valuable to the effective field testing of desired strategies.
>
> "1. A set of common, minimum requirements needs to be specified for each of the seven strategies. Such requirements would list those key features of a given strategy which all sites would need to deal with to carry out the strategy/instruction (a teacher, an employer, etc.); what content or learning needs to be taught; who the target population is; time/duration of strategy; necessary setting. That is, looking at the Journals strategy as an example, the common pattern to be carried out across the four sites could (these are not recommendations--only examples) state that the Journals strategy requires the student to develop or write the journal outside of classroom time, over a period of ten days or more, that the journal needs to be reviewed and

CURRICULUM & INSTRUCTION

COLORADO EXPERIENCE-BASED CAREER EXPLORATION MODEL (7-10) PROJECT

LEARNING PATH

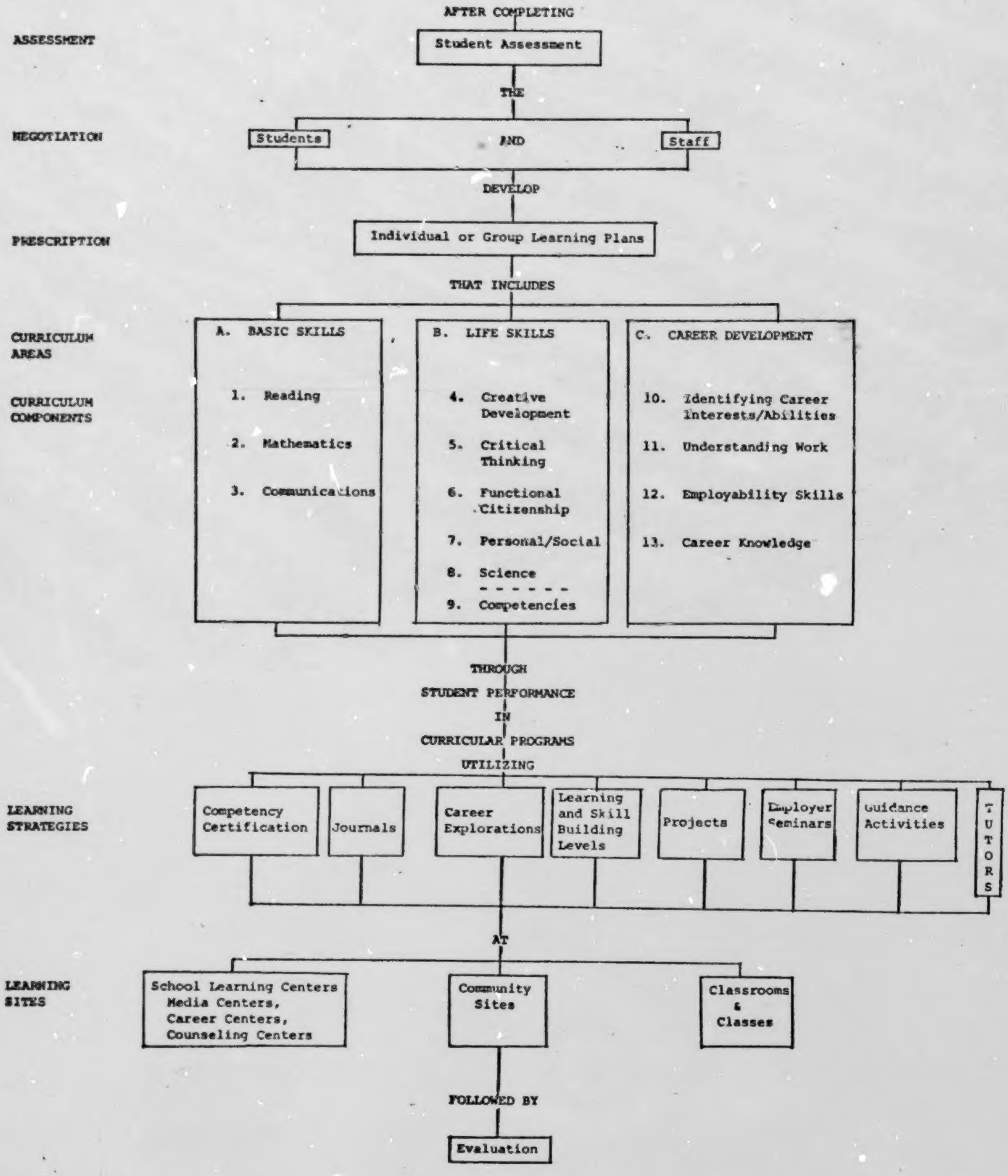

AFTER COMPLETING
ASSESSMENT
Student Assessment
THE
NEGOTIATION
Students
AND
Staff
DEVELOP
PRESCRIPTION
Individual or Group Learning Plans
THAT INCLUDES
CURRICULUM AREAS
CURRICULUM COMPONENTS
A. BASIC SKILLS
1. Reading
2. Mathematics
3. Communications
B. LIFE SKILLS
4. Creative Development
5. Critical Thinking
6. Functional Citizenship
7. Personal/Social
8. Science
9. Competencies
C. CAREER DEVELOPMENT
10. Identifying Career Interests/Abilities
11. Understanding Work
12. Employability Skills
13. Career Knowledge
THROUGH
STUDENT PERFORMANCE
IN
CURRICULAR PROGRAMS
UTILIZING
LEARNING STRATEGIES
Competency Certification
Journals
Career Explorations
Learning and Skill Building Levels
Projects
Employer Seminars
Guidance Activities
TUTORS
AT
LEARNING SITES
School Learning Centers Media Centers, Career Centers, Counseling Centers
Community Sites
Classrooms & Classes
FOLLOWED BY
Evaluation

Chart 4.96

feedback be given to the student, etc. The minimum requirement should be designed so that alternative procedures or activities could be used to fulfill such requirements, bearing in mind the different populations across the state. Also, the minimum requirements should reflect the overall goals and objectives of the CEBCEM program. Such requirements for each strategy are necessary so as to promote some degree of commonality across the four sites. Such requirements would also be very useful during field testing in order for comparisons to be made among the four school distircts, among the four grade levels, and among the various population sizes and settings.

2. Community participation or involvement needs to be emphasized to a larger degree in each of the seven strategies. Pilot test results show that the community as an alternative setting for learning is used in varying degrees across the four districts and within the seven strategies. Overall, however, community sites and workers have been involved with local project strategies in very minor roles. Prior to field testing, each local project and the state project as a whole should examine closely how community representatives can be better used and more frequently used in their programs. Employer instructors and community instructors should be trained in working with students at these desired age levels, they should understand the students' academic programs so that they could provide learning situations which are not only appropriate but also related to the students' academic program. Community representatives, also, should be involved in the development of the individual program as much as cadre teachers have been involved during the first year.

3. Each of the four districts has formed a cadre of teachers to carry out the CEBCEM program in their local district. The amount of training, the amount of involvement and the size of the cadre varies in each district. The results of the pilot testing suggest that for the program to be most effective the cadre group should be small enough so that daily or at the most weekly interaction can occur between the local project director and the cadre group. A larger number of teachers can become involved in the CEBCEM program if the program is set up to focus on specific subjects or specific grade levels for given periods of time. For example, the project may determine to focus on seventh grade teachers and students during the first quarter of the year, eighth grade students and teachers during the second

quarter of the year, ninth grade students and teachers during the third quarter of the year, and tenth grade students and teachers during the fourth quarter of the year. The local projects could decide to work throughout the year with curriculum departments and focus on one or two curriculum areas for a certain amount of time. Forming a cadre group in this manner will require a certain amount of training to be given to each group as they become cadre teachers. Local project directors will also need time to advise and monitor the trained cadre teachers periodically for the remainder of the school year. The field testing however should be conducted during a specified time period and does not need to continue for more than one quarter of the school year. The strategy requirements which were suggested in paragraph 1 will enable the local project directors to present the CEBCEM program to teachers in a short period of time and therefore allow for the maximum amount of time in carrying out these strategies. Cadre teachers should be urged to use all seven strategies with small groups, large groups, and individual students.

4. Students who are to be involved in the field testing of the CEBCEM program in each local district should be identified by the local district before the field testing begins. After students have been identified, the treatment that those students receive (strategies and experiences) can be monitored and documented so that changes in students' behavior and achievement can be compared based on the treatment they received. The number of students who are involved in the field testing of the CEBCEM program does not have to be large. It would be better to have cadre teachers select one classroom of students for a certain length of time than to have all cadre teachers include all their students in the CEBCEM program. After field testing, the cadre teachers may choose to use the CEBCEM strategy with other class periods during the 1977-78 school year.

5. Data concerning the effectiveness of each strategy and all strategies combined should focus on student achievement. A pre-test and post-test design should be considered for all students who participate in the field testing during the 1977-78 school year. This test should reflect the student outcome objectives of the CEBCEM project. Other data such as samples of student work, opinions of students concerning each strategy when compared to other strategies and teachers' evaluations and documentations

of students' work should be collected. The evaluation of field test results should focus on how effective each strategy and all strategies combined were in meeting the student outcome objectives of the CEBCEM project. If achievement in academic learning (basic skills) is included in the student outcome objectives, then data should be collected to compare students' academic achievement before and after the program.

6. A schedule for field testing each strategy in each district at each grade level with various student populations and settings should be determined prior to the beginning of the 1977-78 school year. For example, the Holyoke School District might decide to field test Competency Certification with individual seventh grade students, field test Competency Certification with whole classes of eighth and ninth grade students, and field test this strategy with a small group of tenth grade students. If the field testing is designed by grade levels, competency certification field testing could occur with the seventh grade students in the first quarter, eighth and ninth grade students in the second quarter, and tenth grade students in the third quarter. On the other hand, if the field testing is designed by curriculum areas then each subject teacher would field test Competency Certification in the same time period with his or her seventh, eighth, ninth, and tenth grade students. The local districts would design the field testing to occur at some point during the year with a sample of students in each grade level and in each subject area. If the field test design is by subject area, then a sample of students from all four grade levels would be involved in the CEBCEM project at the same time during the school year. Likewise, if the field test design is by grade level, then a sample of students from one grade level would be receiving CEBCEM instruction at the same time during the school year.

7. Before field testing the Competency Certification strategy, areas for competencies should be determined by the state or each local district. Different competencies at different grade levels may be specified and should reflect student outcome objectives. Field testing then should determine if the areas selected and the means for achieving these competencies were effective at each of the four grade levels. It is possible that in order to achieve a competency in employability skills, students in the seventh grade would achieve competency

in filling out application forms and answering want ads, students in the eighth grade would achieve competency in writing resumes, and students in the tenth grade would achieve competency in interviewing techniques. Upon reaching competency in these three areas, a student would be considered competent in the area of employability.

8. The results from pilot testing the Journals strategy indicate that consideration should be given toward developing a means for evaluating student journals and achieving maximum teacher/student/community interaction. During the field testing, several means for evaluating students' achievement in communication skills and understanding of themselves should be explored. Likewise, different ways of involving the community as a learning resource in the CEBCEM program should be tried using the Journal strategy.

9. Employer instructor involvement in the Career Explorations and Learning and Skill Building Levels strategy needs to be developed. Employer instructors who work with students on both of these strategies should understand the difference between the two strategies and offer different experiences for students depending upon which strategy the students are working on. The employer instructors offered good suggestions for improving these strategies.

10. The Projects strategy appears to be the most developed strategy, at least for small groups or whole classrooms. Field testing of this strategy might emphasize more individualized efforts where students work more closely with community representatives or employer instructors. Consideration should also be given to using this strategy in connection with other strategies as a means for relating academic learning to learning that is going on in the community.

11. Using Employer Seminars with whole classes of students was the predominant setting for the pilot testing of this strategy. During the field testing, efforts should be made toward using this strategy with smaller groups of students. For example, several students interested in retail sales might meet with a few employers to discuss future employment opportunities in retail sales. Efforts should be made to determine if students are capable of setting up Employer Seminars on topics of their own interest. Field testing of this strategy should determine if Employer Seminars can be geared toward topics and issues of interest to some students rather than geared toward presenting general information about occupations and career clusters.

12. Field testing the Guidance Activities strategy should focus on which activites helped students to meet student outcome objectives. Activities should be classified according to objectives. The pilot test results indicate that the students in Colorado could benefit from Guidance Activities that supply general information relating to careers and the USOE career cluster, provide students with experiences in identifying interests, clarifying values, and help students acquire job getting skills.

"These recommendations suggest that prior to field testing, local project directors and state representatives need to determine strategy requirements, select cadre teachers, design field testing schedules, and select student participants."

In examining the recommendations from our third party evaluator, recommendation number 1 was completed during the summer revision of the CEBCEM curriculum as identified in Appendix E, Strategy Definitions and General Requirements. Recommendation number 3 with regards to training was completed during the teacher training workshop indicated in Appendix F, Staff Training Workshop. Recommendation number 5 regarding specific objectives was also completed during the staff training. The identified goals and objectives can be found in Appendix A.

Additional work was completed relating to the other recommendations during the "Implementation Sessions" of the August Training Workshop.

In conclusion, we find that we have met each objective stated for the first operational year of the CEBCEM 7-10 project. The conclusions of the third party evaluator report attests to this result. The Federal On-site Evaluation Reports (on file) also indicate our successes in meeting the Federal Project Requirements.

CONCLUSION

"In this section, we are assessing the Colorado Experience-Based Career Education Model (CEBCEM) program's success in meeting five major objectives it held for itself this past year. Our conclusions are based on observations made throughout the year in Colorado and through our analysis of pilot test results.

- Objective #1: To list and describe the major exploration components of a Model Experience-Based Career Exploration Program, 7-10, including specific student outcome objectives for each component.

"The CEBCEM project successfully listed and described the major exploration components of their model Experience-Based Career Exploration program for students in grades seven through ten. Chart 4 shows the revised major components of the model as they apply to the learning path of the student. To further describe the learning strategies, the CEBCEM project has written descriptions of the strategies as they are to be carried out by the local projects. The project has developed specific student outcome objectives for the curriculum components that are shown in this learning path model.

- Objective #2: To select and adapt as necessary Experience-Based Career Education products, materials, processes, and techniques, to form strategy alternatives for each desired program component.

"The CEBCEM project in each district has reviewed existing Experience-Based Career Education products, materials, processes, and techniques. They have attended workshops held by the Northwest Regional Educational Laboratory and the Research for Better Schools Laboratory. Through these experiences, they have identified strategies, processes, materials, and techniques which they have found to be effective for use with their students and communities.

- Objectives #3 and #4: To specify operational plans for pilot testing at four sites strategies for each program component. To pilot test the strategies at four sites.

"The CEBCEM project designed an operational plan for pilot testing seven strategies in four sites and pilot tested these strategies during the second semester of this school year. PSE, under contract to CEBCEM, developed the specific procedures for the pilot test, including the preparation of instruments and the analysis and interpretation of findings as contained in this final report.

- Objective #5: To use pilot test findings to modify the strategies.

> "Upon receipt of this report, the CEBCEM project will use the pilot test findings to modify the strategies and prepare for the field testing of these strategies in the four districts during Year Two of the project.
>
> "In summary, PSE believes that the project has met each and every one of its five major objectives for 1976-77. We believe that the full verification of this exists in the findings and conclusions PSE has documented in its Interim Report of April, 1977, and in this Final Report."

Additional conclusions regarding the success of this project can be indicated by the reception of this project in the State of Colorado.

During the 1976-77 project year the CEBCEM project staff was requested to provide eleven different presentations on the project to a variety of Career Education persons at workshops, Career Education class sessions and advisory councils. The State staff was requested and presented a workshop for the State CETA Prime Sponsor Counselors. (See Appendix H)

As a result of the CETA workshop, the State staff assisted the Adams County Manpower Prime Sponsor to develop an EBCE phase for their Summer Disadvantaged Youth Program. This involvement was concentrated in six school districts with 28 teachers being involved in the summer project. A desire for continued involvement has been expressed by four of the six districts which participated.

In addition to the above activities five school districts in the State of Colorado requested, and were provided, with dissemination information on the CEBCEM project. (See Appendix I) Out of these five districts two (Brighton and Adams County School District #50) will be utilizing some of the CEBCEM strategies during the 1977-78 school year.

Continued efforts will have to be prioritized for the 1977-78 project year. Increases in requests for training and dissemination are evident. A strong desire and need for continued revision of materials development is also recognized as a priority effort. (See Appendix J) Requests being received from outside the State of Colorado will also have to be dealt with during the second year. (See Appendix J)

With the current demands on project staff time, the second year priorities must be concentrated on the revision of curriculum based on field test results; the development of a management and process handbook for implementing CEBCEM and the revision and finalizing of a training manual based on the results of our staff training model workshop.

Dissemination and implementation of CEBCEM in other schools within the State of Colorado will be second in priority as funds and time permit.

Dissemination outside the State of Colorado must necessitate a response, however it will not be a high priority for the second year.

APPENDIXES

Goals and Objectives for CEBCEM (7-10)

Basic Skills Area

The Basic Skills Area relates reading, math, and communication skills to the students' everyday lives and career goals.

Strategies focusing on the Basic Skills should reinforce those learning levels defined by the school district and demonstrate the relationship between the academic subjects and the reality of their use in the community and throughout the students' life.

Three components have been identified as part of the Basic Skills Area: Applying Basic Skills, Basic Skills and Career Requirements, and Applied or Trained Skills.

A. Applying Basic Skills

The student will be able to apply basic skills to real life situations by

1. presenting an accurate and complete description of his or her education, training, experience, and other related personal data during an interview, on an application, and in a resume.

2. writing thank you letters to employers for whom he or she has worked

3. inquiring by letter about one job announcement placed in a local newspaper or other local sources

4. completing to the satisfaction of the student and the student's basic skills teacher at least one CEBCEM project

B. Basic Skills and Career Requirements

The student will show increased understanding of how basic skill needs vary by

1. observing a worker in a selected career and indicating basic skills which are used daily by that worker in performing his or her job

2. identifying 5 skills which are necessary for employment in several careers

C. Applied or Trained Skills
The student will demonstrate increased ability to understand how applied skills are related to his or her career interests by

1. identifying curriculum subject areas which are related to applied or trained skills

2. identifying school courses which are appropriate for his or her career interest

Life Skills Area

The Life Skills Area concentrates on components which provide students with techniques for effectively developing their personal goals and their community responsibilities, integrating the roles of citizen, family, vocation, and avocation. The focus is on the developmental nature of human growth. Activities encourage recognition of each student as a unique individual while simultaneously teaching common skills necessary to all people.

Six components have been identified as part of the Life Skills Area: Creative Development, Critical Thinking, Functional Citizenship, Personal/Social Development, Science, and Competencies.

A. Creative Development
The student will demonstrate the ability to use imagination to explore new and different approaches and solutions to real life situations and ideas by

Objectives to be developed later

B. Critical Thinking
The student will develop increased ability to gather, analyze, and interpret information and seek solutions to problems by

1. interpreting given data concerning a problem and arriving at a conclusion

2. describing a decision he or she has made and indicating his or her personal values, interests, skills, and physical characteristics which influenced the decision

C. Functional Citizenship
The student will understand as well as experience the responsibilities of a person in a community by

1. describing how four public agencies serve the local community

2. listing three public agencies which deal with youth

3. comparing the structure and functions of the three branches of American government

D. Personal/Social Development
The student will exhibit self-understanding and accept responsibility by

1. identifying realistic learning and life goals for himself or herself

2. carrying out an independent project that is beneficial to his or her personal growth

E. Science
The student will be able to recognize the knowledge of science and how it relates to his or her environment by

Objectives to be developed later

F. Competencies
The student will be able to perform survival tasks necessary to modern life by

1. receiving competency certification in all areas identified by CEBCEM district participants by the end of grade 10

Career Development Area

Components within the Career Development Area relate directly to the student's role of worker. Activities help the student successfully identify, assess, organize, and use career information through real experiences with people and places in the community and through study and research within the school setting.

Within the Career Development Area four components have been identified as essential to student success: Identifying Career Interests/ Utilities, Understanding Work, Employability Skills, and Career Knowledge.

A. Identifying Career Interests/Abilities
The student will develop increased knowledge of personal aptitudes, interests, and abilities as applied to career interests by

1. identifying the influence of family, peer, and societal expectation on potential career interests

2. identifying factors that contribute to the personal job satisfaction of people

3. matching his or her needs and interests with a career

4. outlining strategies aimed toward achieving tentative career goals including strategies to improve skills and knowledge deficiencies to reach those goals

B. Understanding Work

The student will demonstrate increased knowledge of social, governmental, and economic issues and trends in the world of work by

1. describing how the social, governmental, and economic systems in America relate to potential careers
2. identifying local and national economic trends
3. recognizing declining and emerging industries and occupations
4. investigating supply and demand for a particular occupation of his or her own interest in the geographic community of his or her own choosing
5. identifying (investigate) at least two agencies that are concerned with employment and unemployment
6. discussing employment opportunities for a selected career field with two employers

C. Employability Skills

The student will demonstrate general skills in job finding, job application, and on-the-job interactions by

1. locating and using 3 different sources of information concerning a career
2. interacting successfully with adults at community sites

D. Career Knowledge

The student will show increased knowledge of the variety of careers available, the qualifications and benefits of particular careers, and preparation needs by

1. listing three benefits associated with a career area of interest
2. identifying six occupations which are related to a career field
3. observing three occupations which are related to his or her career interest area
4. matching qualifications to a particular career

Appendix A.4

EBCE Training Session

October 11-14, 1976

Techniques, Strategies and Processes Utilized by RBS and NWREL

Participants by Sub-Sites:

Jefferson County School District R-1

Frank Wood
Jim Danenhauer
Paula Pearch
Marge Bozarth
Jeanne Duffy
Rich Berlanti
Bruce MacMillan
Sue Akerman
Jerry Wanser
David Mangum
Don Hansen
Clyde Ford
Marvelle Schlicht
Robert Blum
Jo Ann Ivory
Mary Harris

Eagle County School District 50

Judy O'Radnik
Glen Gallegos
Bob Zimmerman
Terry Schiessl
Douglas Johnson
Alan Nelms
G. Wm. Richmond

Holyoke School District RE 1-J

Al Renzelman
Daryl Grasmich
Karen Crocker
Rita Brunken
Gene Daise

Rocky Ford School District R-2

Louise Williams
Jim Sperber
Charles Slate
Eleanor Knapp
Jim Hamm

Dr. Charles Torino
Research for Better Schools

Virginia Thompson
Northwest Regional
Educational Laboratory

Bill Barnes, State Supervisor
Career Education, Research, EPDA

Appendix B

STUDENT APPLICATION

Student ______________________________ Date ______________

Age ________ Date of Birth ____________ Sex ____ Grade Level ________

Address ______________________________ Telephone ____________

____
city   state   zip

In Emergency, contact ______________________ Telephone ________

Parent(s) or Guardian(s) ______________________________________

Parent(s) or Guardian(s) employed at __________________________

____

High School Counselor ____

Present Class Schedule	Proposed Schedule for Next Semester
1 ____________________	1 ____________________
2 ____________________	2 ____________________
3 ____________________	3 ____________________
4 ____________________	4 ____________________
5 ____________________	5 ____________________
6 ____________________	6 ____________________

Describe in a paragraph your reasons for wishing to be in ECC:

PARENT PERMISSION

Date ____________________

I have discussed the ECC program with ____________________ and grant permission for his/her full participation in ECC.

____
signature

*List of Instruments Developed for Data Collection and Evaluation of CEBCEM 7-10 Pilot Test (September 1, 1976 - August 31, 1977)

- Journals Strategy
  - Pilot Testing Procedures
  - Student Questionnaire
  - Teacher and CEBCEM Staff Questionnaire

- Projects Strategy
  - Pilot Testing Procedures
  - Student Questionnaire
  - Teacher and CEBCEM Staff Questionnaire

- Guidance Activities Strategy
  - Pilot Testing Porcedures
  - Student Questionnaire
  - Teacher and CEBCEM Staff Questionnaire

- Learning and Skill Building Levels Strategy
  - Pilot Testing Procedures
  - Student Questionnaire
  - Employer Instructor Questionnaire

- Employer Seminars Strategy
  - Pilot Testing Procedures
  - Student Questionnaire
  - Employer Instructor Questionnaire

- Career Explorations Strategy
  - Pilot Testing Procedures
  - Student Questionnaire
  - Employer Instructor Questionnaire

- Competency Certification
  - Pilot Testing Procedures
  - Student Questionnaire
  - Teacher and CEBCEM Staff Questionnaire
  - Community Representative Questionnaire

* Complete copies of the instruments developed for data collection and evaluation may be obtained from the Colorado State Board for Community Colleges and Occupational Education, 207 State Services Building, Denver, Co 80203 (106 pages)

Appendix D

JOURNAL STRATEGY

Definition

Journal writing gives students a chance to think about what is happening to them and to draw connections between the basic skills, life skills, and career development areas. This strategy encourages students to practice and develop writing and communication skills. Journal entries are usually written to staff on a regular basis over a given period of time. Student journals, on a confidential basis, can be used by both students and staff to share thoughts and feelings with each other.

General Requirements

This strategy requires the staff to:

1. Respond to the student's journal entries in a friendly, nonthreatening way.
2. Assess student's strengths and weaknesses in writing and communication skills.

The strategy requires students to:

1. Record personal thoughts and feelings on a regular basis.
2. Draw conclusions between learning activities and aspects of personal life.
3. Practice writing and communication skills.

Options

Two options exist for implementing the journal strategy:

Option I - Students complete journals correlated with other CEBCEM strategies.

Option II - Students complete journals as part of a class.

CAREER EXPLORATIONS STRATEGY

Definition

Career exploration comprises a logical series of steps through which students learn more about a specific job and relate that learning to their own interests and abilities. The exploration experience allows students to examine adults in a work setting, investigate educational and training requirements of specific jobs, and explore the social and environmental factors affecting working conditions and life styles. Career explorations are primarily designed to help students in the Career Development Area but also give practice in the Life Skills, with reinforcement of the Basic Skills Area.

An exploration packet is completed for each exploration experience. The packet uses a self-directed approach and is designed to help students organize and integrate the various segments of their experience.

Students usually visit a number of community sites over a given period of time. The amount of time spent at a given site is determined by the student, the school, and/or community site.

Explorations provide data for negotiating other EBCE activities. A student may choose to return to a site for a more extensive learning and skill building level; or, an interest may develop in exploring other sites related to a career the student becomes aware of during the exploration; or, this exploration may form a part of a project.

General Requirements

This strategy requires the staff to:

1. Contact the exploration site.
2. Make arrangements for students to visit the sites or determine procedures for students to make their own arrangements for visiting.

3. Develop exploration packets that:
    a. Help students focus on and record their observations.
    b. Give practice in career investigation.
    c. Develop assessment skills, critical thinking skills, and basic skills.
4. Introduce the career exploration strategy to the students, specify the number of sites a student is required to observe, and explain the procedures for conducting a career exploration.

This strategy requires the student to:

1. Select/identify community resource sites for exploration.
2. Request arrangements be made for him or her to visit the selected sites or, with staff approval, make his or her own arrangements to visit.
3. Make observations at the selected sites using the exploration packet.
4. Complete the exploration packet to the satisfaction of staff and community representatives from the resource sites.

Options

In the career explorations strategy, four options for implementation are possible:

Option I - The individual exploration conducted by one student.

Option II - The team exploration conducted by three to five individuals.

Option III - The small group exploration conducted by less than two students.

Option IV - The large group exploration conducted by 20 or more students.

LEARNING AND SKILL BUILDING LEVELS STRATEGY

Definition

This strategy is designed to enable students to follow through on their career explorations by returning to a particular site for an indepth learning experience. Learning levels usually take from three to six weeks; however, the time may vary from site to site.

This strategy enables students to learn the attitude and skill requirements of specific jobs and provides students with hands-on experiences. In addition to the hands-on practice, students may negotiate projects (this strategy will be discussed in the next section) that relate basic academic skill training to the experience they are receiving at a learning level site. Students are required to complete an exploration at the site before they can use the site for a learning level.

The complexity of the activities of this strategy is determined by the age and needs of the students.

General Requirements

This strategy requires the staff to:

1. Contact sites.
2. Arrange for learning level experiences at the sites or develop procedures for students to make arrangements at the site.
3. Assist students in preparing projects relating their hands-on experience to basic academic learning.

This strategy requires students to:

1. Select a learning level site. This may be done with the assistance of staff and/or parents.

2. Participate in hands-on experiences.

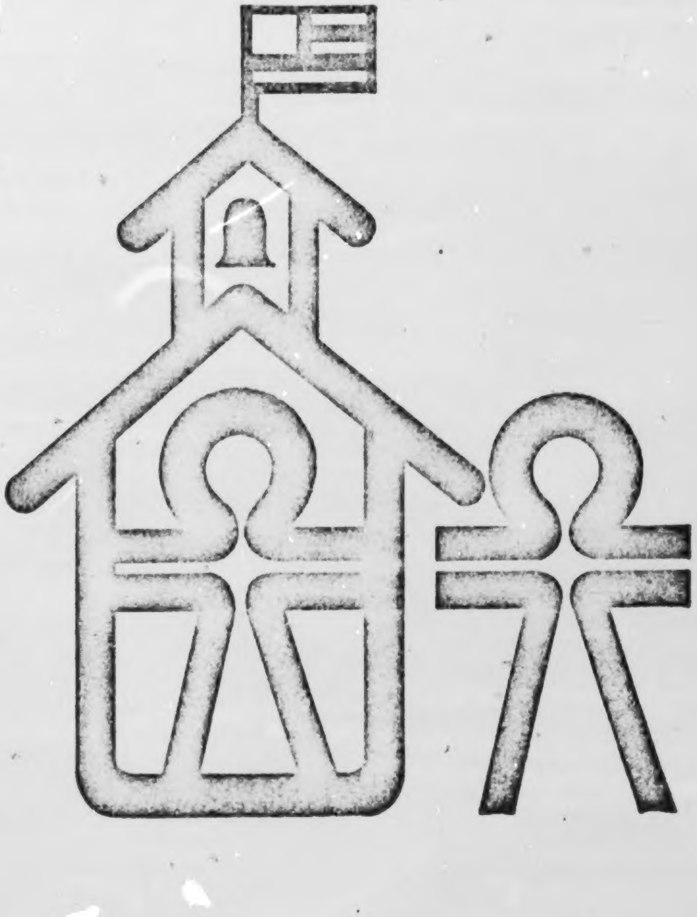
Options

Two options have been identified for the learning and skill building level strategy. They are:

Option I - Concentrated - usually three to six weeks.

Option II - Prolonged - one hour every day for one year.

The choice between options is based on the number of community sites available and the amount of time available to the student. In rural communities with a limited number of community sites Option II has proven effective.



PROJECT STRATEGY

Definition

Projects are "learning contracts" designed to help the students achieve their learning goals and make efficient use of their experiences in the local community. They may be either negotiated with an individual student or pre-written for use by an individual or group of students.

Project design and processes encourage students to manage their own learning and to see the relationships among personal goals, career options and specific knowledge and skills. Projects can help students become aware of and utilize the learning potential inherent in a career exploration or learning level experience at community sites.

A project can be designed for any of the components found in the basic skills, life skills and career development areas. Projects are appropriate for students at any of the grade levels.

A sample project format is included in these materials.

General Requirements

This strategy requires staff to:

1. Consult with community resource persons for input on project activities.
2. Prepare the topic, activities, timeline, resources, and criteria for evaluation of each project.
3. Assist students in obtaining the resources for the projects.
4. Evaluate the individual activities and the end product of the project or make arrangements for a community resource person to evaluate individual project activities.

This strategy requires the student to:

1. Select a project based on interest or needs.
2. Work independently to complete the project's activities by using the specified resources and meeting the established criteria of performance.

Options

Two options have been identified for implementation of the journal strategy.

Option I - Pre-written - project activities and requirements are pre-established by the staff.

Option II - Negotiated - a student negotiates the specifics of a project with the staff based on interest or needs.

GUIDANCE ACTIVITIES STRATEGY

Definition

Guidance activities provide a foundation upon which many of the other EBCE activities can be built. These activities are directed toward self- and career-awareness. They provide personal/social development in the life skills area, and all the components in career development; i.e., identifying career interests, understanding work, employability skills and career knowledge.

The activities can be conducted by a counselor or by a teacher using the counselor as a resource person. The goals and outcomes of this strategy should be personalized to reflect each student's needs and interests.

General Requirements

This strategy requires staff to:

1. Develop a guidance program which will provide students with experiences in self-assessment, problem-solving, decision-making, career awareness, and career planning.
2. Assist students in evaluating their successes with the career guidance activities.

This strategy requires students to:

1. Participate in self-assessment activities.
2. Practice planning, problem-solving, and decision-making.

Options

Activities using two options have been developed.

Option I - Group activities - students all do the same activities at the same time in a group situation.

Option II - Group with individual activities - students all do the same basic activities; some activities are done in a group situation with follow-up activities done individually.

TUTOR STRATEGY

Definition

The tutor strategy may be used to accomplish identified needs and goals in each of the curriculum areas of basic skills, life skills, and career development. The tutor is a person who is working with the student on a one-to-one basis to help the student achieve the desired proficiency level.

This tutor may be a parent, advanced student, counselor, teacher, or community resource person interested in helping students in a particular area of need.

This strategy requires the staff to:

1. Identify persons qualified and interested in being tutors.
2. Develop a set of requirements, based on student needs, to be met by tutors.
3. Hold a training program for prospective tutors.
4. Identify students who need tutorial aid.
5. Help the student and tutor arrange for time for the tutorial assistance. This may be during class or after school.

This strategy requires the student to:

1. Recognize a deficiency in a proficiency level.
2. Arrange meeting times with the tutor.
3. Maintain a schedule of appointments between student and tutor.
4. Cooperate with the tutor in periodic reassessment.

Appendix E.10

STAFF TRAINING

WORKSHOP

August 15-19, 1977

Snowmass Conference Center and Resort
Silvertree - El Dorado
Snowmass, Colorado

Sponsored by:

State Board for Community Colleges and
Occupational Education
1525 Sherman Street, Denver, Co 80203

In cooperation with

Eagle County School District RE50
Holyoke School District RE-1J
Jefferson County School District R-1
Rocky Ford School District R2

Appendix F.1

STATE WORKSHOP FOR PARTICIPANTS

in CEBCEM (7-10)

(An Exemplary Part D Project)

Workshop Planning Committee Members

Project Staff

Jan Cromwell, Project Director
SBCCOE, Denver, Co

Bill Barnes, State Project Coordinator
SBCCOE, Denver, Co

Doug Johnson, Local Coordinator
Eagle, Co

Al Renzelman, Local Coordinator
Holyoke, Co

Dave Mangum, Local Coordinator
Lakewood, Co 80215

Cherie Lyons, Assistant Coordinator
Lakewood, Co 80215

Jim Hamm, Local Coordinator
Rocky Ford, Co

State Steering Committee

Jeanne Werschke
Colorado Department of Education

Frank Johnson
State Advisory Council for CE

Leonard Hammock, Superintendent
Eagle, Co

Jack Lorenzini, Superintendent
Holyoke, Co

Bob Blum, CE Coordinator
Lakewood, Co

Rolland Walters, Superintendent
Rocky Ford, Co

August 15, 1977

10:00 a.m. Registration Opens

1:00 - 2:00 p.m. Session I

- Introductions
  - Getting Acquainted
  - Workshop Overview

2:00 - 3:00 Session II

- Overview of What's Happening in Career Education
- Federal Commitments - Frank Cupp
  Vern Bak
- State Commitments - Jeanne Werschke
  Bill Barnes

Break

3:30 - 4:15 Session III

- Keynote Speaker
  (To be announced)

4:25 Planning for Implementation

- Daily Evaluation
- Synthesis of Activities into Planning Mode
  (Participants meet by district)

6:30 Dinner

Appendix F.3

August 16, 1977

8:30 - 9:10 a.m. Session I

Introduction to CEBCEM (7-10)
"What We are and Where We're Going"

9:10 - 10:00 Session II

Community Awareness - Public Relations
"Tuning In" - "Fine Tuning"
Panel Discussion

Break

10:15 - 12:00 Session III

Site Recruitment and Analysis
"Partners in Education" - Andrea Hunter

Lunch

1:00 - 2:00 p.m. Session III

Site Recruitment and Analysis
"Reporting and Wrap-Up"

2:00 - 2:45 Session IV

Site Utilization
"Overworked and Underpaid" - Roger Louden

Break

3:00 - 4:00 Session V

Community Instructor Training Needs
Career Explorations
Competency Certification
Employer Seminars
Learning and Skill Building Levels

4:10 - Planning for Implementation
Daily Evaluation
Synthesis of Activities into Planning Mode
Registration for Strategy Sessions
(Participants meet by district)

6:30 Dinner

Appendix F.4

August 17, 1977

8:30 - 10:15 a.m. **Session I**

Teaming
"Our Community Team" - Charles Newton
"In-house Teams"

Break

10:45 - 12:00 **Session II**

"Student Learning Styles - Teaching Methods"

- Assessment - Screening
- Small Groups
- Individualization

Lunch

1:00 - 2:30 p.m. **Session III**

CEBCEM Strategy Presentations

- Projects
- Career Explorations
- Guidance Activities
- Employer Seminars
- Competency Certification
  - Definition
  - How to Implement - Options
  - Sex-Fair Practices
  - Documentation
  - Evaluation - Revisions, Revisions, Revisions

Break

3:00 - 4:30 **Session IV**

CEBCEM Strategies - Repeat

4:40 - Planning for Implementation
Daily Evaluation
Synthesis of Activities into Planning Mode
(Participants meet by district)

6:30 Dinner

"Western Bar-B-Que"

Appendix F.5

August 18, 1977

8:30 - 10:00 a.m. Session I

CEBCEM Strategy Presentations

- Tutors
- Classes
- Journals
- Learning & Skill Building Levels
- Career Explorations
- Projects
  - Definition
  - How to Implement - Options
  - Sex-Fair Practices
  - Documentation
  - Evaluation - Revisions, Revisions, Revisions

Break

10:30 - 12:00 Session II

CEBCEM Strategies - Repeat

Lunch

1:00 - 2:30 p.m. Session III

Resource Centers

"Materials Available" - State - J.J. Lawhead

"Unique Situations and Usage"
Panel Discussion

Break

3:00 - Planning for Implementation

Daily Evaluation
Synthesis of Activities into Planning Mode
(Participants meet by district)

6:30 Dinner

August 19, 1977

8:30 - 9:15 a.m. Session I

"Student Outcomes" - Carol Aslanian

"Record Keeping Procedures"

9:15 - 10:00 Session II

Exchange of Implementation Plans and Ideas

"Where We Think We're Going"

Break

10:30 - 11:30 Session III

Workshop Review

"Food for Thought"

11:30 - 12:00 Final Evaluations - Last Minute Details

12:00 Lunch - Final Farewells

Evaluation

CEBCEM - 7-10 Workshop

Snowmass, Colorado

August 16 - 20, 1977

The Colorado Experience-Based Career Exploration Model (CEBCEM) Staff Training Workshop was held August 16, 1977 through August 19, 1977 at Snowmass, Colorado. Approximately seventy participants from four school districts attended eighteen sessions designed to acquaint workshop members with the philosophy, goals, objectives, strategies, and materials of the CEBCEM 7-10 Model. Participants represented Eagle County, Holyoke, Jefferson County, and Rocky Ford school districts.

The CEBCEM staff identified three major objectives for the training workshop. At the end of the workshop, participants will:

1. be familiar with CEBCEM as it operates at each of four sites,
2. be capable of assuming the various roles necessary to utilize CEBCEM strategies and materials,
3. have completed specific plans for implementing CEBCEM strategies and materials at their home site.

Based on daily evaluations of the CEBCEM Staff Training Workshop, participants left the workshop feeling capable of assuming the various roles necessary to utilize CEBCEM materials and strategies; most had completed specific plans for implementing the strategies.

Monday	Total Evaluation of Day's Activities	
Introductions and Overview of Career Education	52%	Above average
	32%	Average
	16%	Below average

Comments:

1. Financial information given was vital.
2. Never assume the new people have any more knowledge than an opinion about what Career Education is.
3. Need to hear from local directors.
4. Define Career Education.
5. Presentation by V. Smith was informative, interesting, and helpful.
6. Need more information on finances (grants, etc.)

Appendix G.1

7. I am new to the program and need to know specific philosophy and details of the program.

8. More input about each program in the State - Jefferson, Holyoke, etc. giving an overview on their programs.

Tuesday

Total Evaluation of Day's Activities

65.4%	Above average
22.6%	Average
12%	Below average

Ratings by Sessions on Tuesday:

Session I - Colorado Experience-Based Career Exploration Model 7-10

Evaluation of Session I

73%	Above average
23%	Average
4%	Below average

Comments:

1. More overview from each district as to where they have been and where each is going.
2. Focus on relationships between resource person and students.
3. The above info could have been communicated by printed sheet in 15 minutes' time.
4. Why has this program been targeted 7-10? Will the students eventually be receiving EBCE in all grade levels and will that become repetitious?
5. I think new people would benefit from session on terminology of program before initial explanation of entire overview.
6. Too confusing for novices.
   Too simplistic for those with previous involvement and experience.
7. This is very individualized by district.

Session II - Community Awareness and Public Relations

Evaluation of Session II

63%	Above average
21%	Average
16%	Below average

Comments:

1. In my situation we will have a job site coordinator. The other teachers involved in EBCE will not have time to do job site recruitment and this is important.

2. Need info to help me make decisions about what we will do in my school! How many schools are

planning group visitation experiences or individualized site experiences?

3. I felt the presentation panel produced many effective methods to explore further.
4. Good idea for panel.
5. Highly important area! Good idea on getting students involved and showing appreciation.
6. There needs to be close/constant communication of purpose and placement between CWE, CETA Job Services, and CEBCEM.
7. Constant support of community people involved through "process participation."

Session III - Site Recruitment and Analysis

Evaluation of Session III

69%	Above average
23%	Average
8%	Below average

Comments:

1. I would have liked to have had more information about how to organize site development for small groups of students who would participate as a group at the community site.
2. Must the interview with the employer take so much time?
3. I definitely understand and emphasize the importance of site recruitment. I think the proposed sessions need a more practical approach.
4. Thoroughly inform the possible sites as to what is expected of them, what they may expect to gain, etc., prior to signing them up.
5. The LSAF needs more revisions because of the length.
6. I question the time-consuming paperwork and procedure. Does a classroom teacher have time for this with regular and extra-curricular activities?

Session IV - Site Utilization

Evaluation of Session IV

67%	Above average
21%	Average
12%	Below average

Comments:

1. Excellent speaker - very usable - useful.
2. I would like to have examples, i.e., actual forms - which were mentioned in the site utilization presentation.
   I learned some good ideas.
3. No site personnel are here to give us their experiential background.
4. It is important for a single person to set up sites, but also follow-up after students utilize the sites.
5. Overall, I have the concern that the expectations of the program will overshadow the possibility of learning and growing that happen spontaneously to children and adults.

Session V - Community Instructor Training Needs

Evaluation of Session V

55%	Above average
25%	Average
20%	Below average

Comments:

1. I do not understand why the resource people need such lengthy training periods.
2. I strongly feel that CEBCEM should address the district needs of middle level students. While the Northwest Lab is an excellent program, it is geared for the senior high student and the individual student - employer learning and specialization. The middle level student is in a unique transitional stage and I believe that the RBS model is more in tune with the needs of middle level youth. I would like to see representatives from RBS at conferences to talk about their program which is based upon exploration and small groups of students going to sites. I really believe that we in Colorado are going to be dealing primarily with small groups of students on an exploration basis. Therefore, I would suggest that the Philadelphia consultants be included in any future conferences to explain the Philadelphia model.
3. Put more responsibility on students' shoulders. They must learn to respect the presentation - be it super or not so super.

4. I don't think my community resource people need to be trained. I give them the idea and they go from there and do a good job.
5. Isn't there a difference in how sites are developed for individuals or small groups?

Wednesday

Total Evaluation of Day's Activities

78.5%	Above average
16.5%	Average
5.0%	Below average

Ratings by Sessions on Wednesday:

Session I - Our Community Team and the In-house Team

Evaluation of Session I

90%	Above average
10%	Average
0%	Below average

Comments:

1. Charlie gave an excellent presentation and I agree to the barrier between education and business. Involving business at the workshops would help tremendously.
2. Enjoyed Newton's presentation and enthusiasm. Enjoyed the opportunity for exchanging ideas. Enjoyed the opportunity to address local problems.
3. (Need to) have more input from the business community as speakers at workshops. Need a course in community awareness and utilization.
4. Getting cooperation within building as well as community.
5. Include interested parents.
6. I proposed the teacher consultant idea and I honestly believe we could get most teachers involved in Career Education. Let them know they are experts in their field and ask for the use of their expertise.

Session II - Student Learning Styles - Teaching Methods

Evaluation of Session II

66%	Above average
23%	Average
11%	Below average

Comments:

1. There should be more sessions like this one. I got more out of this morning than I have all others.
2. Need Piagetian-based information for all teachers in program.

Evaluation of Wednesday and Thursday Small Group Strategy Sessions

Small Group Session on Strategies (Wednesday afternoon and Thursday morning)

Total Strategy Sessions Evaluation

85.3%	Above average
9.9%	Average
4.8%	Below average

Evaluation of Each Strategy Session:
(Conducted both Wednesday and Thursday)

Journals

Evaluation of Session

100%	Above average
0%	Average
0%	Below average

Learning & Skill Building Levels

Evaluation of Session

68%	Above average
27%	Average
5%	Below average

Projects

Evaluation of Session

68%	Above average
18%	Average
14%	Below average

Employer Seminars

Evaluation of Session

93%	Above average
7%	Average
0%	Below average

Competency Certification

Evaluation of Session

84%	Above average
4%	Average
12%	Below average

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Career Explorations

Evaluation of Session

85%	Above average
13%	Average
2%	Below average

Tutors

Evaluation of Session

91%	Above average
3%	Average
6%	Below average

Guidance Activities

Evaluation of Session

93%	Above average
7%	Average
0%	Below average

Comments on Strategy Sessions:

1. More demonstration needed.
2. It appears that NW Lab's detail is much more than most of us plan to use. The junior high's goal and project level is much more along simple lines.
3. I got some good ideas from this session.
4. Excellent presentation.
5. Feel that small group sessions were most effective.
6. Need much more time in this area to cover it all.
7. Play acting and participation in activities to use in classroom (very interesting) and helpful.
8. Excellent presentation!.
9. Very good explanation - corrected my misconceptions.
10. Sue did a good job, and got us to write entires. I did have some misconceptions that were cleared up.
11. Need more time in this area - would like to visit some schools and observe execution of projects.
12. The more specific examples the better. Input from employers (Betty) most helpful.

Thursday

Evaluation of Resource Centers

Resource Centers

85%	Above average
12%	Average
3%	Below average

(Strategy Sessions Evaluation Combined with Wednesday)

Comments:

1. Resource presentation was excellent - valuable to program.

2. More music education for elementary classroom music teachers.
3. I was not aware of this in my school.
4. Needed more time to look at materials.
5. I feel most staff members of each school should be made aware of Career Ed - Resource Center.

Friday	Total Evaluation of Day's Activities	
	49.5%	Above average
	47.8%	Average
	2.7%	Below average

Conclusions:

Based upon a final evaluation of how well the stated workshop objectives were met the following evaluation was compiled.

	How well was the Objective met?	
1. CEBCEM at 4 sites	47%	Above average
	53%	Average
	0%	Below average
2. Capable of utilizing CEBCEM	55%	Above average
	45%	Average
	0%	Below average
3. Completed plans for implementation	71%	Above average
	29%	Average
	0%	Below average

When asked how well this workshop would serve as a model, this evaluation occurred:

Model for future workshops	25%	Above average
	64%	Average
	11%	Below average

In reviewing the week's activities and subsequent evaluation, consideration must be given to the background of the participants.

Three categories of participants were involved in the training session:

1. Those with no previous involvement in CEBCEM.
2. Limited prior involvement.
3. Totally involved in CEBCEM.

Prior training of the participants ranged from:

1. Had never attended a training session.
2. Had attended a district level training session.
3. Had attended State training session in October.
4. Had attended a training session at RBS or NWREL.

To further develop a training model the coordinators have assesed this evaluation and will further develop the model in this manner:

1. A training manual will be designed based on rough draft material used for this training session.
2. Much of days one and two activities will be summarized into an introduction section of the training manual.
3. Small group sessions will be the focus of training with large group sessions used for follow-up.
4. Participants will be identified by background, prior involvement and training; however, separation of these groups will not occur. They will be utilized to assist others within the small group sessions.

Appendix G.9

Presentations:

1. Colorado Springs School District #11
2. Lewis-Palmer School District

   Contact Person: Craig Crapsey, District CE Coordinator

3. Rocky Mountain Study Council

   Contact Person: Carol Lewis, Career Education Committee

4. North Central BOCES - Career Education Symposium

   Contact Person: Ted Wahler, Director

5. Boulder Valley Public Schools - Career Education Class

   Contact Person: Asahi Ashima

6. University of Northern Colorado - Career Education Class

   Contact Person: Dr. Louise Keller

7. National Debriefing on EBCE by NWREL
8. Rural Schools Career Education Workshop

   Sponsored by Rural School Project in Cashmere, Washington

   Contact Person: Bernie Griffith, Project Director

9. Executive Committee - Division of Occupational Education
10. State Advisory Council for Career Education

    Contact Person: Charles Newton, Chairman

Workshops and Programs:

Experience-Based Career Education Workshop for CETA Counselors
State of Colorado

Contact Person: Charles E. Birkhead, State Supervisor

Establish Youth Exploratory Program

Adams County Manpower - CETA Summer Youth Program

Contact Person: Terry DeVriendt
Project Coordinator
4740 101st Place 466-0573

Appendix H

School-Requested Dissemination:

1. Longmont, Colorado - Frederich Junior High

   Contact Person: Mary Deacon 665-4979

2. Brighton, Colorado - Brighton High School

   Contact Person: Bobbie Stagger 659-3268
   237 S. 8th Ave
   Brighton, Co 80601

3. Colorado Springs Public Schools District #11 and South Junior High

   Contact Persons: Lee Higgins
   John T. Farrington
   Dorothy Vidmar

4. Cherry Creek School District

   Contact Persons: Connie Williams, Smoky Hill
   Maggie Bogden 773-1184, Ext. 307

5. Adams County School District #50

   Contact Persons: Jeanne Winter
   Westminster High School
   Phil Friedrich
   Adams County
   Career Enrichment Park

Appendix I

Requests for Information From Outside the State:

Pamona Unified School District
Pamona, California

Austin Independent School District
Austin, Texas

Materials Developed:

CEBCEM Brochure

CEBCEM Slide/Tape Presentation

Handbook - CEBCEM Curriculum and Instruction

CEBCEM Training Manual